SAMSUNG TECHWIN

NETWORK VIDEO RECORDER

User Manual

SRN-473S/873S/1673S

Network Video Recorder
User Manual

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❖ **Design and specifications are subject to change without prior notice.**

❖ **The initial administrator ID is “admin” and the password should be set when logging in for the first time.**
Set password for your wireless network if you use the product with a wireless router. Being not protected with password or using the default wireless router password may expose your video data to potential threat.
Please change your password every three months to safely protect personal information and to prevent the damage of the information theft.
Please, take note that it's a user's responsibility for the security and any other problems caused by mismanaging a password.

overview

IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit.
Follow all the safety instructions listed below.
Keep these operating instructions handy for future reference.

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings, Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding- type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. if the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Standards Approvals

FC CE

- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
  This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

overview

BEFORE START

This manual provides operational information necessary for using the product and contains a description about each component part and its function as well as menu or network settings.
You have to keep in mind the following notices :

- SAMSUNG retains the copyright on this manual.
- This manual cannot be copied without SAMSUNG's prior written approval.
- We are not liable for any or all losses to the product incurred by your use of non-standard product or violation of instructions mentioned in this manual.
- Prior to opening the case, please consult a qualified technician first. Whenever this is needed power must be removed from the unit.
- Before adding a hard disk drive or external storage (USB memory, USB HDD, etc), check if it is compliant with this product. For the compatibility list, contact the retailer.

Warning

Battery

It is essential that when changing the battery in the unit, the replacement battery must be of the same type otherwise there may be a possibility of an explosion.

The following are the specifications of the battery you are using now.

- Normal voltage : 3V
- Normal capacity : 65mAh
- Continuous standard load : 0.2mA
- Operating temperature : -20°C ~ +60°C
  (-4°F ~ +140°F)
- A secondary battery (Rechargeable)

CALIFORNIA USA ONLY

This Perchlorate warning applies only to primary CR (Manganese Dioxide) Lithium coin cells in the product sold or distributed ONLY in California USA.
"Perchlorate Material - special handling may apply,
See www.dtsc.ca.gov/hazardouswaste/perchlorate."

Caution

- Connect the power cord into a grounded outlet.
- The Mains plug is used as a disconnect device and shall stay readily operable at any time.
- Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.
- Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.

System Shutdown

Turning off the power while the product is in operation, or undertaking improper actions may cause damage or malfunction to the hard drive or the product.
To safely turn off the power, check <**OK**> in the system termination pop up window and then remove the power chord.
You may want to install a UPS system for safe operation in order to prevent damage caused by an unexpected power stoppage. (Any questions concerning UPS, consult your UPS retailer.)

■ If powered off abnormally, restarting may take more time for restoring data from hard disk drive for proper operation.

Operating Temperature

The guaranteed operating temperature range of this product is 0°C ~ 40°C (32°F ~ 104°F).
This product may not work properly if you run right after a long period of storage at a temperature below the guaranteed one.
Prior to using a device that has been stored for a long period in low temperatures, allow the product to stand at room temperature for a period.
Especially for the built-in HDD in the product, its guaranteed temperature range is 5°C ~ 55°C (41°F ~ 131°F).
Likewise, the hard drive may not work at a temperature below the guaranteed one.

Ethernet Port

This equipment is in door use and all the communication wirings are limited to inside of the building.

Security Precautions

The initial administrator ID is “**admin**” and the password should be set when logging in for the first time.
Set password for your wireless network if you use the product with a wireless router. Being not protected with password or using the default wireless router password may expose your video data to potential threat.
Please change your password every three months to safely protect personal information and to prevent the damage of the information theft.
Please, take note that it’s a user’s responsibility for the security and any other problems caused by mismanaging a password.

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overview

FEATURES

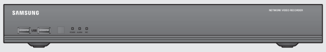
The product records video and audio from network cameras to a hard disk, and enables playback from the hard disk. It also provides remote monitoring environment for video and audio over the network using a remote computer.

- User-friendly UI
- VGA, 4CIF, record in a max of 4096x2160 (8M pixel) supported
- Record and play video
- Record and play audio
- Supports ONVIF Profile S standard and RTP / RTSP protocols
- Full HD video output via HDMI
- Display the HDD operation status by HDD SMART
- HDD overwrite enabled
- Backup using USB 2.0 protocols and external HDD
- Simultaneous playback of 4, 8, or 16 channels
- Various Search Modes (Search by Time, Event, Text, Backup)
- Various Recording Modes (Normal, Event, Scheduled Recording)
- Alarm Input / Output
- Remote Monitoring function by Windows Network Viewer
- Live monitoring of the network camera
- Installation Wizard Function (Quick Setup)

Package Contents

Please unwrap the product, and place the product on a flat place or in the place to be installed.
Please check the following contents are included in addition to the main unit.

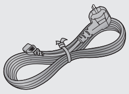
SRN-473S



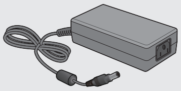
NVR

Mouse

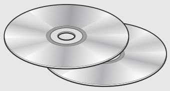
Remote Control /
Remote Control Battery (AAA)



Power Cable

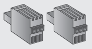


Power Adaptor



Network Viewer Software /
User Manual CD

User Manual or Quick Manual

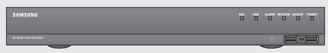


Terminal block

- Two additional screws are provided to install an HDD for models that come without an HDD installed.

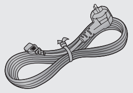
overview

SRN-873S

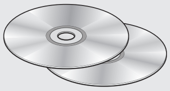


NVR

Mouse



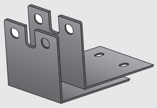
Power Cable



Network Viewer Software /
User Manual CD

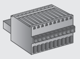
Remote Control /
Remote Control Battery (AAA)

User Manual or Quick Manual



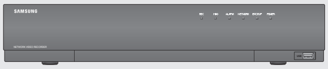
Bracket rack

Bracket mounting screws

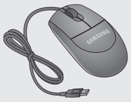


Terminal block

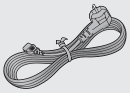
SRN-1673S



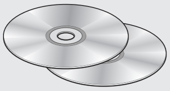
NVR



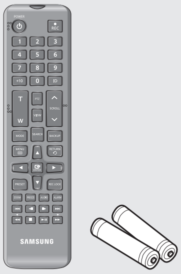
Mouse



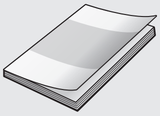
Power Cable



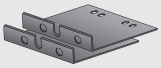
Network Viewer Software /
User Manual CD



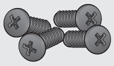
Remote Control /
Remote Control Battery (AAA)



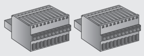
User Manual or Quick Manual



Bracket rack



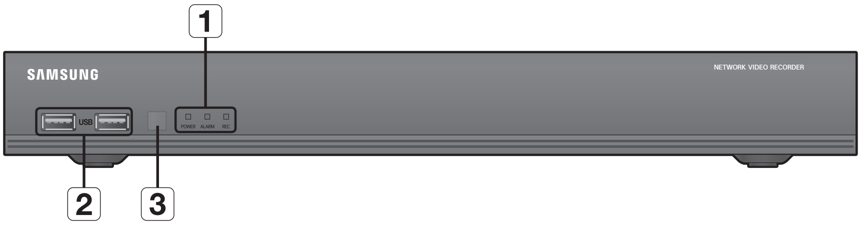
Bracket mounting screws



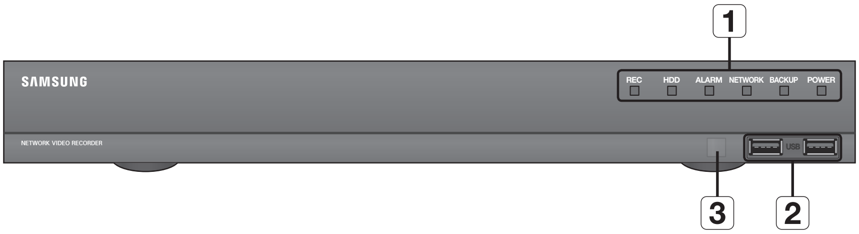
Terminal block

PART NAMES AND FUNCTIONS (FRONT)

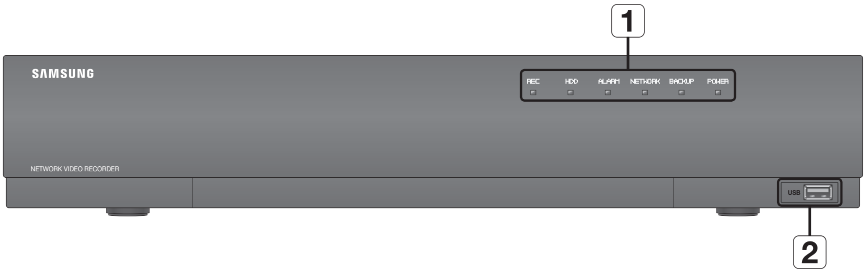
SRN-473S


1
SAMSUNG
NETWORK VIDEO RECORDER
USB
POWER
ALARM
REC
2
3

SRN-873S


1
SAMSUNG
REC
HDD
ALARM
NETWORK
BACKUP
POWER
NETWORK VIDEO RECORDER
USB
3
2

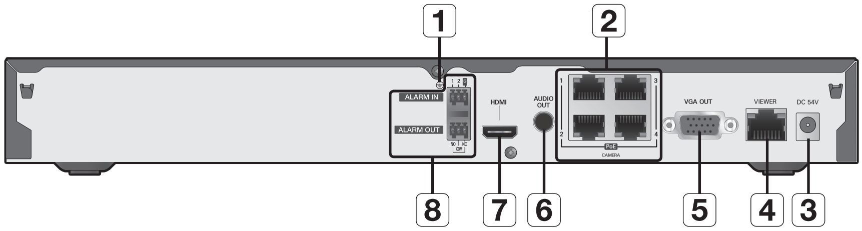
SRN-1673S


1
SAMSUNG
REC
HDD
ALARM
NETWORK
BACKUP
POWER
NETWORK VIDEO RECORDER
USB
2

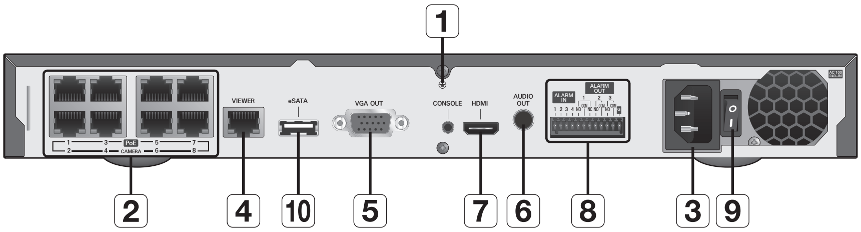
Part Names		Functions
1	**LED Indicator**	**REC** : Lights on when recording is in progress.
		HDD : Displays the normal access to HDD. LED turns on when accessing the hard disk.
		ALARM : Lights on when an event occurs.
		NETWORK : Displays both network connection and data transfer status.
		BACKUP : Displays when Backup is in progress.
		POWER : Shows the power ON/OFF status.
2	**USB**	Connects the USB devices.
3	**Remote Reception System**	Receive the signal from the remote control.

PART NAMES AND FUNCTIONS (REAR)

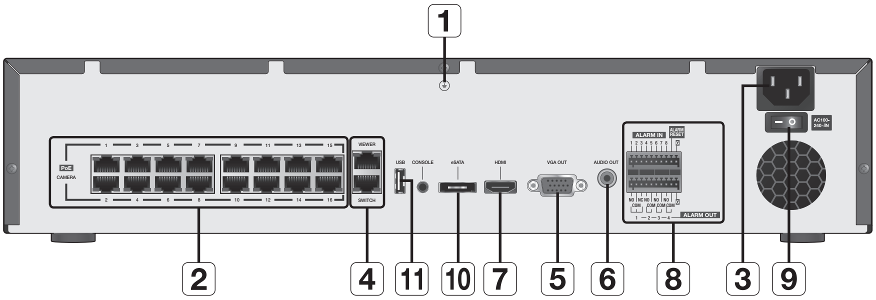
SRN-473S


1
2
ALARM IN
ALARM OUT
HDMI
AUDIO OUT
PoE
CAMERA
VGA OUT
VIEWER
DC 54V
8
7
6
5
4
3

SRN-873S


1
PoE
CAMERA
VIEWER
eSATA
VGA OUT
CONSOLE
HDMI
AUDIO OUT
ALARM IN
ALARM OUT
2
4
10
5
7
6
8
3
9

SRN-1673S

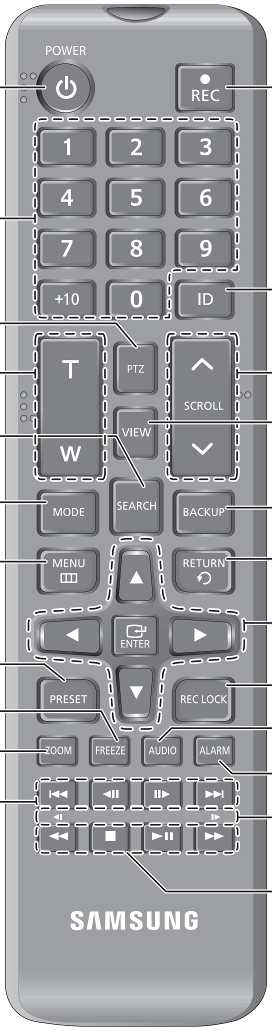

1
PoE
CAMERA
VIEWER
SWITCH
USB
CONSOLE
eSATA
HDMI
VGA OUT
AUDIO OUT
ALARM IN
ALARM RESET
ALARM OUT
AC100-240~IN
2
4
11
10
7
5
6
8
3
9

Part Names		Functions
1	Ground connection	A terminal to connect a separate ground cable. ■ Make sure to add a ground cable in order to use the equipment safely.
2	PoE (CAMERA)	Power supply port to connect to a camera.
3	Power	Terminal to connect power to.
4	VIEWER	Port used to send video to the web viewer.
	SWITCH	Port connected to a camera, and you can access the camera's web viewer to setup detailed camera settings.

Part Names		Functions
5	**VGA OUT**	VGA Video Signal Output Port.
6	**AUDIO OUT**	Audio Signal Output Port (RCA jack).
7	**HDMI**	HDMI connector port.
8	**ALARM**	- ALARM IN : Alarm input ports. SRN-473S : 1~2 CH SRN-873S : 1~4 CH SRN-1673S : 1~8 CH - ALARM OUT : Alarm output ports. SRN-473S : 1CH SRN-873S : 1~3 CH SRN-1673S : 1~4 CH - ALARM RESET : Alarm Reset port. ■ Applicable only to the SRN-1673S model.
9	**Power Switch**	Power on/off switch.
10	**eSATA**	Ports used for external storage device connections.
11	**USB**	Connects the USB devices.

- [**CONSOLE**] is designed for the service repair purpose only.

REMOTE CONTROL


POWER
REC
1
2
3
4
5
6
7
8
9
+10
0
ID
T
W
PTZ
SCROLL
VIEW
MODE
SEARCH
BACKUP
MENU
RETURN
ENTER
PRESET
REC LOCK
ZOOM
FREEZE
AUDIO
ALARM
SAMSUNG

POWER
Displays the Exit pop up screen.

NUMBER [0~+10]
Used as the numeric input keys, or displays a single channel.

PTZ
Displays or ends PTZ.

T/W
Zooms in or out.

SEARCH
Displays the search menu.

MODE
Changes the screen mode.

MENU
Display the live screen menu.

PRESET
Displays the Preset Setup.

FREEZE
Freezes the screen temporarily.

ZOOM
Runs the digital zoom (x2) function.

Skip Backward (by unit time), Slow Rewind, Slow Forward, Skip Forward (by unit time)

REC
Starts or ends the live recording.

ID
Sets the ID of the system.
Select 2 digits from 0 ~ 9 while pressing the ID Key.

SCROLL ∧∨
Moves the menu scroll.

VIEW
Runs the View function in the PTZ mode.

BACKUP
Displays the Backup Menu.

RETURN
Returns to the previous screen.

Up/Down/Left/Right(▲▼◄ ►)/ENTER
Moves the cursor up/down/left/right, and runs the Select Menu.

REC LOCK
Selects the recording lock function.

AUDIO
Turns Audio on/off.

ALARM
Cancels the Alarm.

Move Frame
While paused, moves to the previous/next frame.

FR, STOP, PLAY/PAUSE, FF

Using the Numeric buttons

CHANNEL 1–9	Press each button between 1 to 9.
CHANNEL 10	Press the [**+10**] button first, then press the 0 button again within 3 seconds.
CHANNEL 11–16	Press the [**+10**] button first, then press any number between 1 to 6 within 3 seconds.

Changing the Remote Control ID

Remote control's ID and NVR's ID should be matched for proper operation.

1. Press the [**ID**] button of the remote control and check the ID displayed on the NVR screen.
   The factory default ID of the remote control is 00.
2. Enter 2 digits of your selection in order, while pressing the [**ID**] button of the remote control.
3. When ID input is done, press the [**ID**] button of the remote control again to check the setting.

- If you want to change the remote control ID to 08: Press 0 and 8 in order while the [**ID**] button of the remote control is pressed.
  For changing the ID of remote device, refer to "**Remote Devices**". (Page 85)

installation

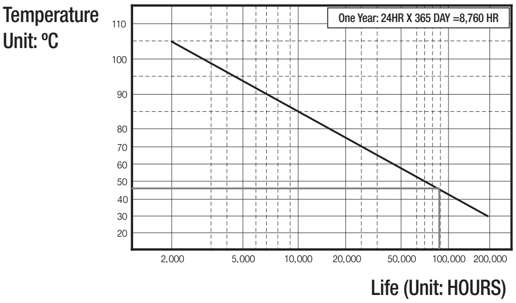
Please take note of the followings before using this product.

- Do not use the product outdoor.
- Do not spill water or liquid in the connection part of the product.
- Do not impose the system to excessive shock or force.
- Do not pull out the power plug forcefully.
- Do not disassemble the product on your own.
- Do not exceed the rated input/output range.
- Use a certified power cord only.
- For the product with an input ground, use a grounded power plug.

CHECKING THE INSTALLATION ENVIRONMENT

This product is a top-notch security device that is equipped with a high-capacity HDD and other key circuit boards.

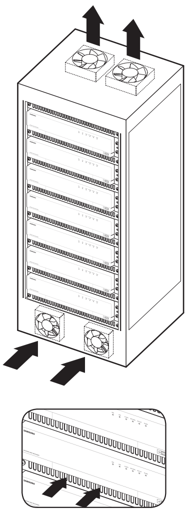
Note that an excessive internal temperature of the product may cause a system failure or a shortened product life (see the right figure). Keep in mind the following instructions before installing the product.



[Figure 1]

When mounting the product on a rack, comply with the following instructions.

1. Please ensure that the rack inside is not sealed.
2. Please ensure the air is circulated through the inlet/outlet as shown in the picture.
3. If you pile up the prudcts or other rack-mount devices as shown in figure 2, secure room for ventilation or install a vent.
4. For natural air convection, place the inlet at the bottom of the rack and the outlet on top.
5. It is strongly recommended that a fan motor is installed at the inlet and the outlet for air circulation. (Please fit a filter at the inlet to screen dust or foreign substances.)
6. Please maintain the temperature inside the rack or surrounding areas between 0°C ~ 40°C (32°F ~ 104°F) as shown in the figure 1.



[Figure 2]

Rack Mount Instructions - The following or similar rack-mount instructions are included with the installation instructions :

A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

C) Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

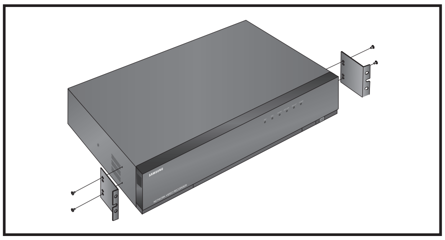
D) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

E) Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

RACK INSTALLATION

Install the Bracket-Rack as shown in the figure, and then fasten the screws on both sides (2 screws on each side).

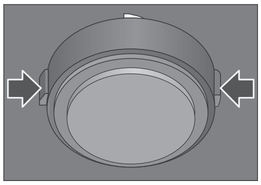
- Fix the screws not to be loosened by vibrations.



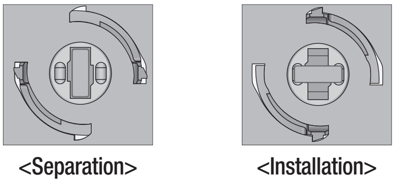
Cautions when Installing in the Rack

To install multiple NVRs in the rack, make sure to separate the FOOT at the bottom of each NVR.

1. There are four FOOTs at the bottom of a NVR.
   Press the projected parts at both-ends of each “**FOOT**” and turn it counterclockwise.



2. “**FOOT**” is separated from the main body when it is turned to the end of fastening groove.



HDD ADDITION

Make sure to unplug the power cord from the wall outlet to prevent possible electric shock, injury or product damage. Please consult your provider for further information on HDD installation since improper installation or settings may damage the product.

- Number of HDDs supported : SRN-473S : max 1
  SRN-873S : max 2
  SRN-1673S : max 4 can be added.
- Make sure to unplug the power cord from the wall outlet before proceeding with the installation.

- **Cautions for data loss (HDD care)**
  Please pay attention so that the data inside the HDD is not damaged.
  Before adding a HDD, please check the compatibility with this product.
  HDD is vulnerable to malfunction due to its sensitive nature especially against shock when operating.
  Please ensure that the HDD is free from such shock.
  We are not liable for any damage to the HDD incurred by user's carelessness or miss use.
- **Cases might cause damage to HDD or recorded data**
  To minimize the risk of data loss from a damaged HDD, please backup data as often as possible.
  If exposed to shock when disassembling or installing, data stored in the hard disk may be damaged.
  A sudden power failure or turning off the product while in HDD operation may damage the hard disk drive.
  HDD or files stored inside may be damaged if the main body is moved or impacted during the HDD operation.

Cautions when installing a HDD

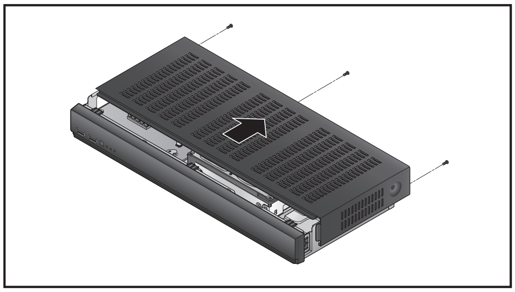
1. Do not apply excessive force to the HDD.
2. Pay attention so as not to lose the disassembly screws or accessories.
   - If the screws or accessories are not put together correctly, the product may breakdown or not operate properly.
3. Please check the HDD compatibility before adding a HDD.
   - Please contact your nearest dealer to obtain the list of compatible devices.

Installing the HDD

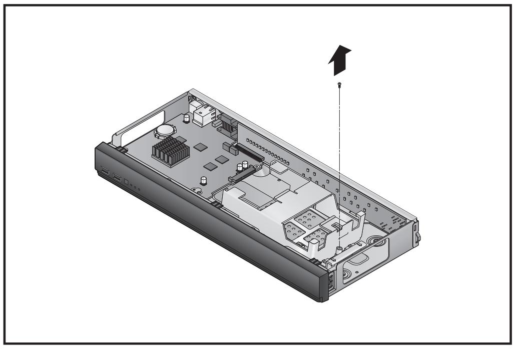
- If the installed HDD had been used with other devices, it will be automatically formatted.

How to install an HDD in SRN-473S

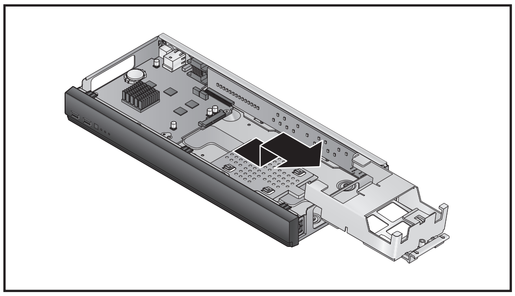
1. After unscrewing, push back and remove the cover.



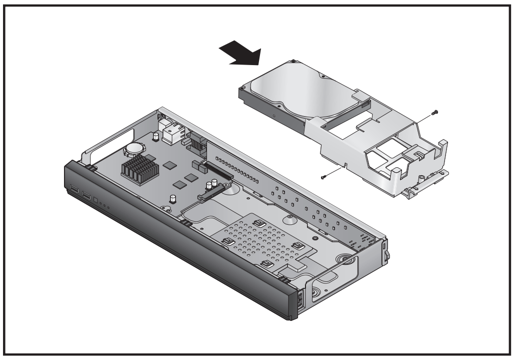
2. Loosen a setscrew of the bracket.



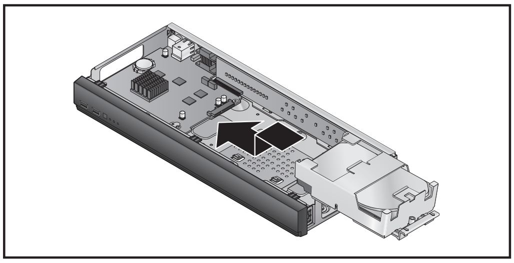
3. Push the bracket in the direction of the arrow on the board and remove it.



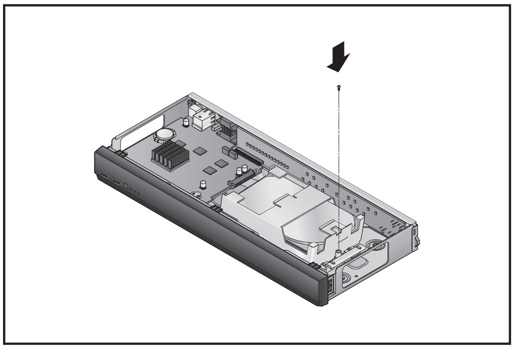
4. After inserting the HDD into the bracket, tighten the left and right screws to fix it.



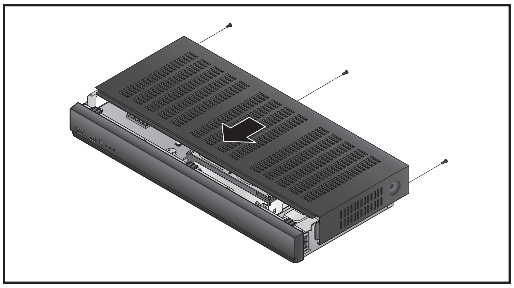
5. Locate the bracket with the HDD installed in a groove of the case, push it in the arrow direction and connect a power data port on the board.



6. Tighten a setscrew of the bracket.

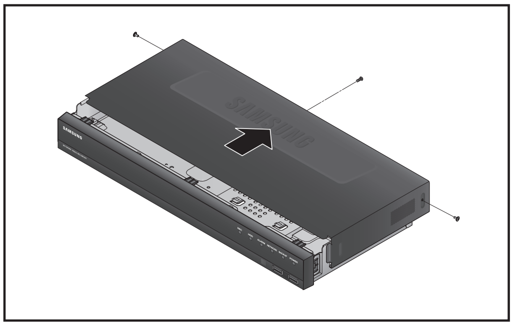


7. Close the cover, and tighten a setscrew in the back.

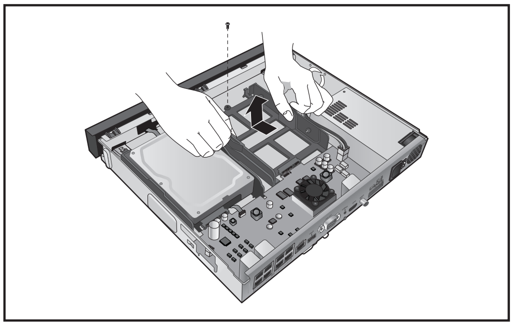


How to install an HDD in SRN-873S

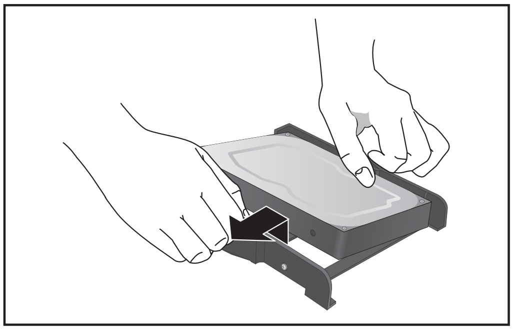
1. First of all, loosen the screws in the left, right, and back of the case, and remove the cover.



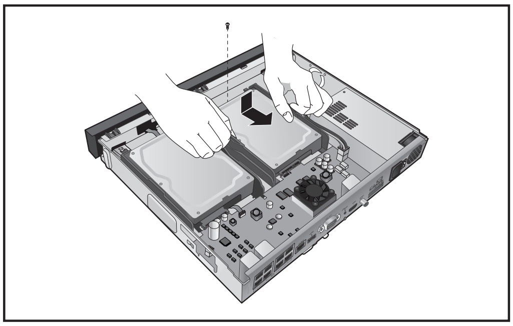
2. Loosen a screw from the HDD bracket and remove the bracket.
   - While applying pressure to both side end grips of the bracket, pull them forward to remove the HDD bracket from the main body.



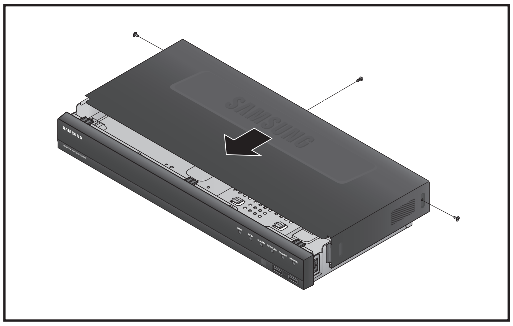
3. After aligning and inserting one side of the HDD to the bracket, open the other side bracket wide and insert the HDD between them.
   - Align a hole in the bracket with a screw hole in the HDD to fix them.



4. Push the bracket with the HDD installed and tighten the screws to fix it.



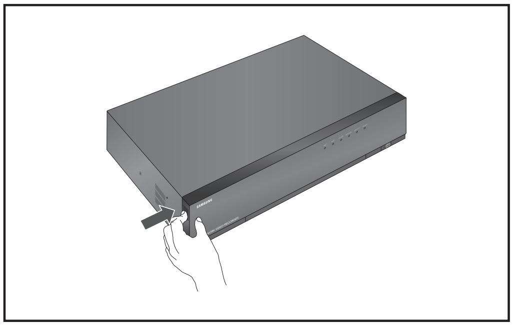
5. Close the cover and tighten the screws to fix it.



How to install an HDD in SRN-1673S

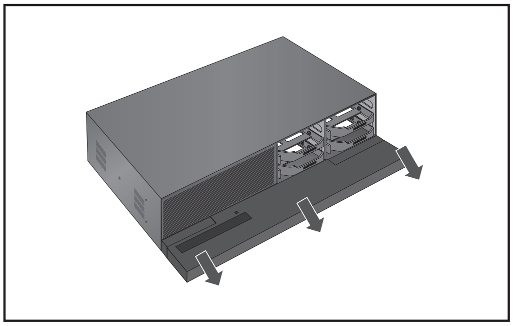
• How to open the front cover and install an HDD

1. Pull open the front cover.



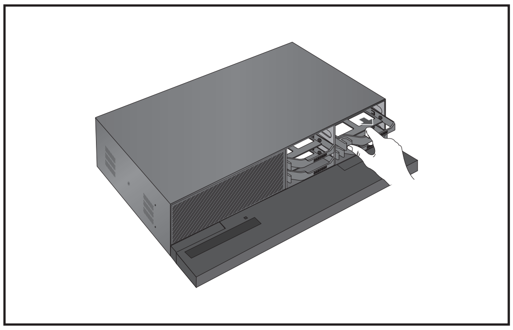
2. Open the front cover and check the HDD installation bracket.

   ■ Release the USB connection before opening the front cover to prevent damage to the USB port.

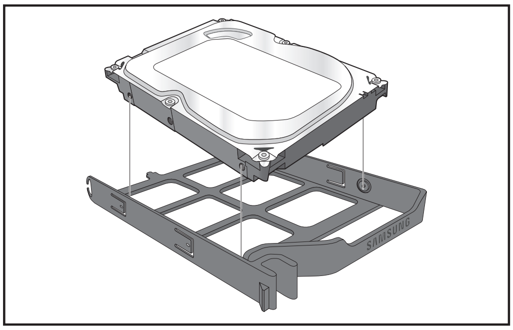


3. Push the latch to the right and remove the HDD bracket.

   ■ Take care not to scratch your hands when removing the HDD bracket.

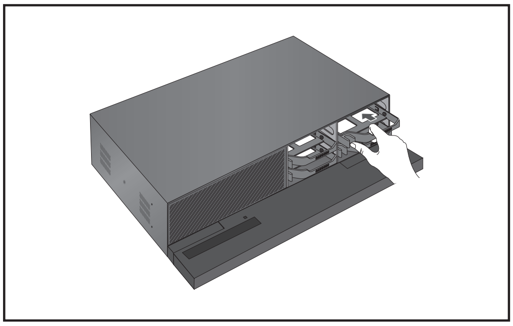


4. Align and insert HDD into the bracket home. After inserting one side, push and insert the other side slightly.

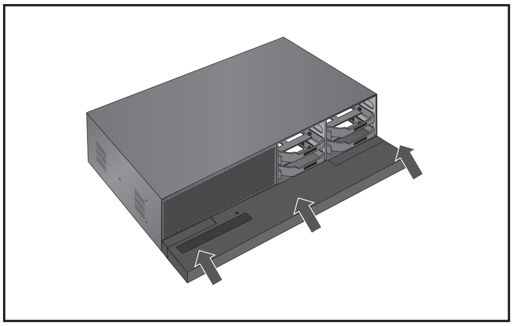


5. Align the bracket with the HDD installed with the enclosure latch, and push the bracket in the direction of the board.

- Push it until you hear the latch lock sound. If the HDD is not completely connected, it may be detected.



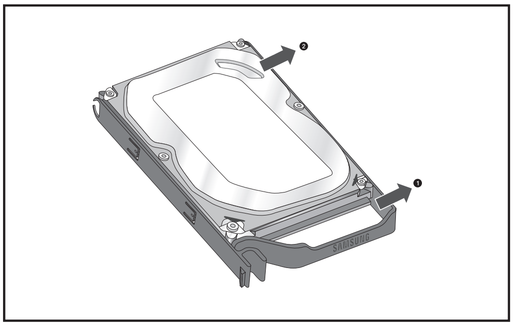
6. Push the front cover upwards and close it.



- **How to exchange an installed HDD**

1. Open a bracket wide in the direction of the arrow and remove the holder from the HDD.
2. Open the other bracket wide and remove it from the holder.

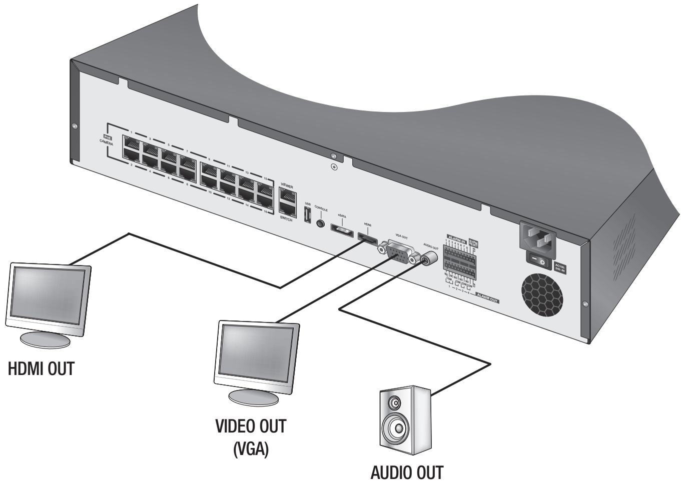
- The procedure after HDD exchange is the same as the procedure for "**Installing the HDD**".



connecting with other device

CONNECTING TO AN EXTERNAL DEVICE

- The following figures are based on Model SRN-1673S.

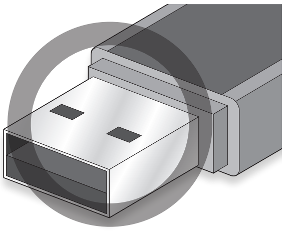


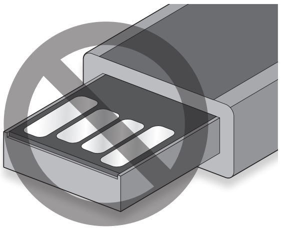
- Unrated or improper power source may cause damage to the system. Ensure that you use only the rated power source before pressing the POWER button.

CONNECTING THE USB

1. On the front of the product, there is a USB port.
2. USB HDD, memory, or a mouse can be connected to USB ports.
3. If a USB HDD is connected to the system, recognition and settings are available in "**Setup** > **Device** > **Storage Device**". (Page 83)
4. The product supports hot plugging function that enables connecting/disconnecting USB devices while in operating the system.

- If you use the USB device for Backup purposes, format it with FAT32 on PC if it is not formatted on the NVR.
- Some USB devices may fail to function properly due to compatibility issue, please check the device before using.
- Only USB storage devices that comply with the standards (having a metal cover) are guaranteed for data transfer. In case if the USB device's electric contacts have been worn out, data transfer between the devices may not properly function.

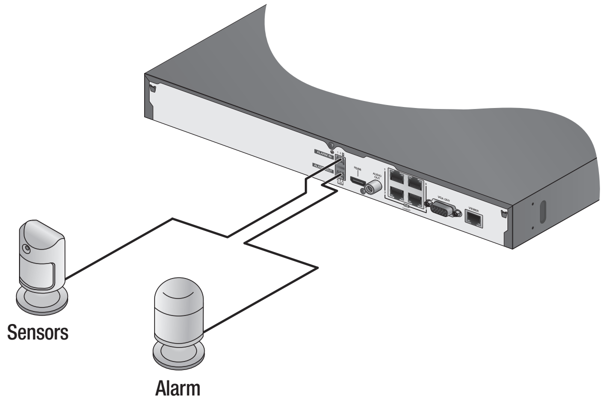




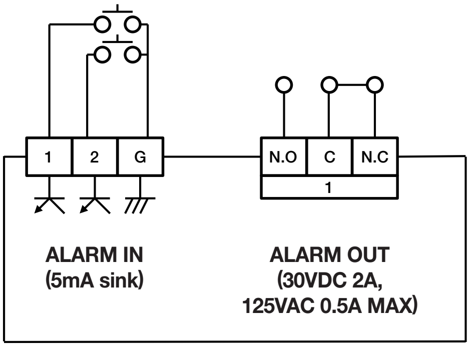
CONNECTING THE ALARM INPUT/OUTPUT

The Alarm In/Out port at the back is composed of the following.

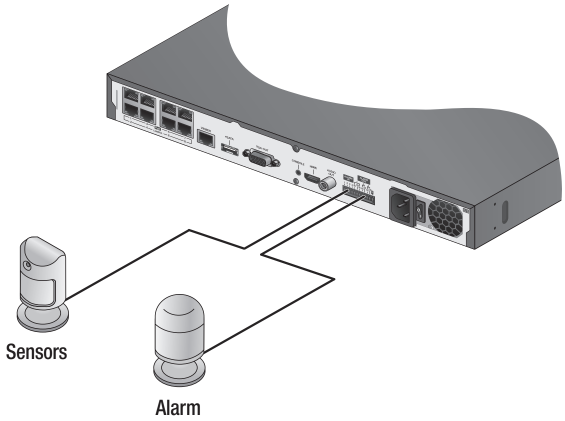
SRN-473S


Sensors
Alarm

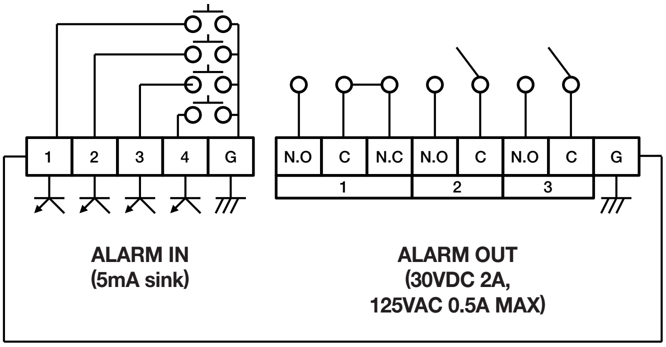
- ALARM IN 1 ~ 2 : Alarm Input Port
- ALARM OUT 1 : Alarm Output Port


1
2
G
N.O
C
N.C
1
ALARM IN
(5mA sink)
ALARM OUT
(30VDC 2A,
125VAC 0.5A MAX)

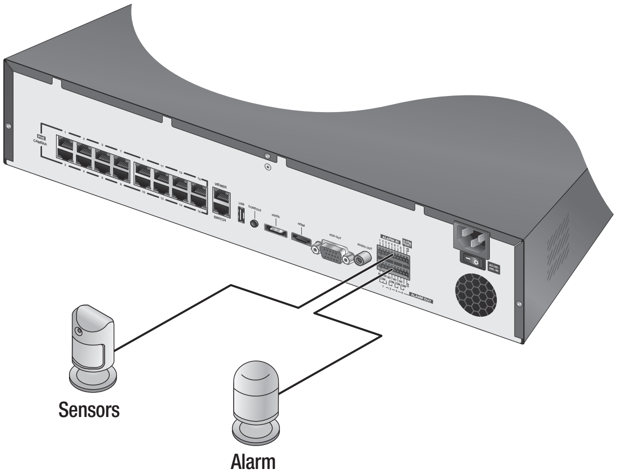
SRN-873S


Sensors
Alarm

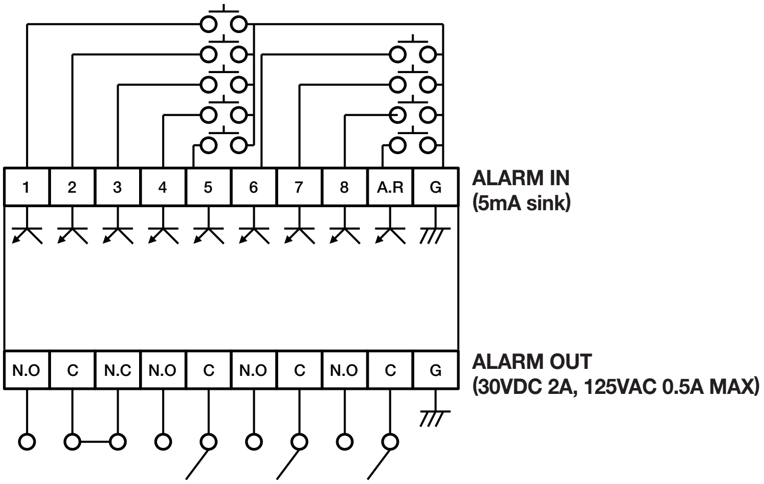
- ALARM IN 1 ~ 4 : Alarm Input Port
- ALARM OUT 1 ~ 3 : Alarm Output Port


1
2
3
4
G
N.O
C
N.C
N.O
C
N.O
C
G
1
2
3
ALARM IN
(5mA sink)
ALARM OUT
(30VDC 2A,
125VAC 0.5A MAX)

SRN-1673S


Sensors
Alarm

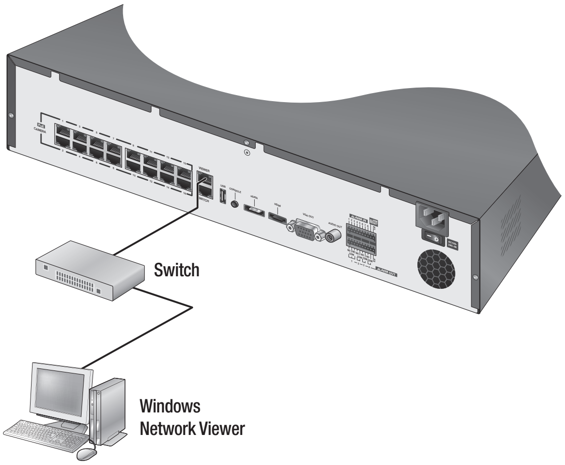
- ALARM IN 1 ~ 8 : Alarm Input Port
- ALARM RESET : On receiving an Alarm Reset signal, the system cancels the current Alarm Input and resumes sensing.
- ALARM OUT 1 ~ 4 : Alarm Output Port


1
2
3
4
5
6
7
8
A.R
G
ALARM IN
(5mA sink)
N.O
C
N.C
N.O
C
N.O
C
N.O
C
G
ALARM OUT
(30VDC 2A, 125VAC 0.5A MAX)

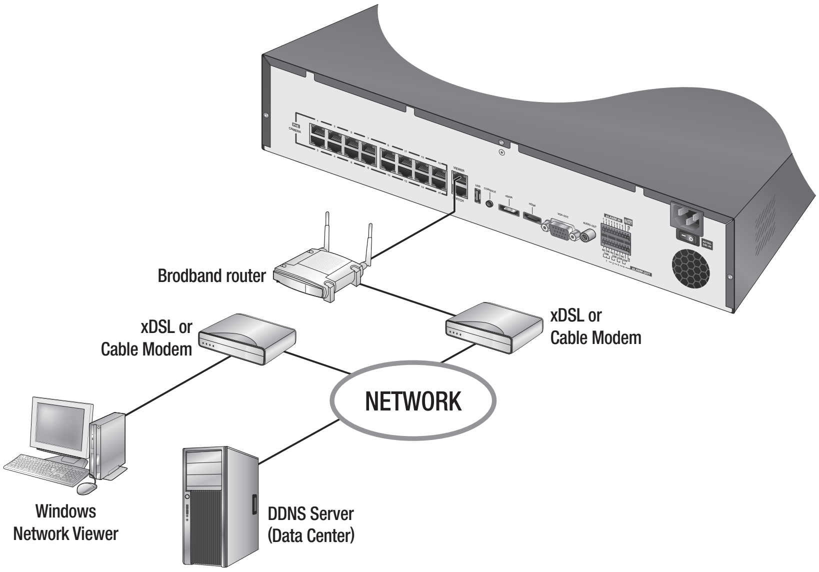
CONNECTING THE NETWORK

- For more information about network connection, refer to "**Network Configuration**". (Page 97)
- The following figures are based on Model SRN-1673S.

Network connection via Ethernet (10/100/1000BaseT)

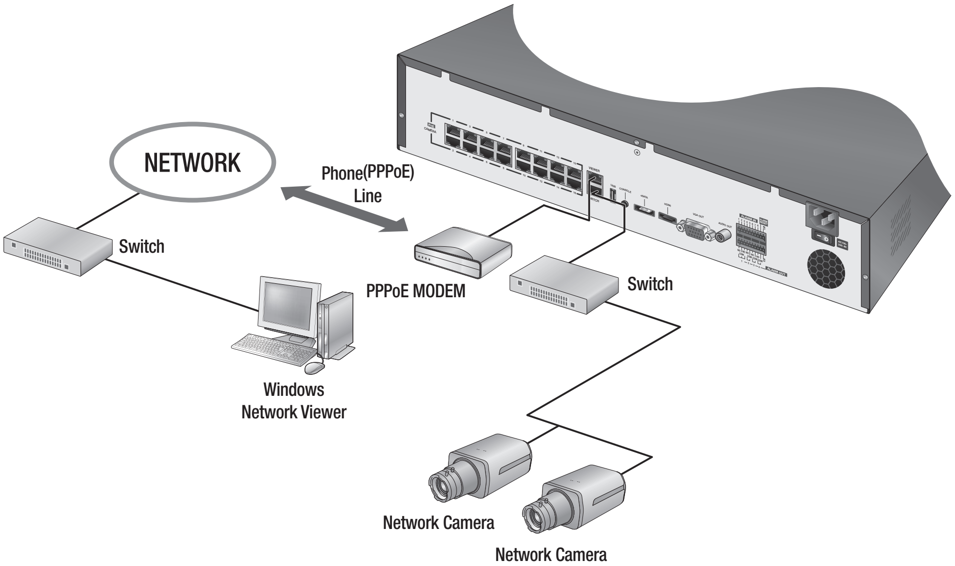

Switch
Windows
Network Viewer

Network connection via router


Brodband router
xDSL or
Cable Modem
xDSL or
Cable Modem
NETWORK
Windows
Network Viewer
DDNS Server
(Data Center)

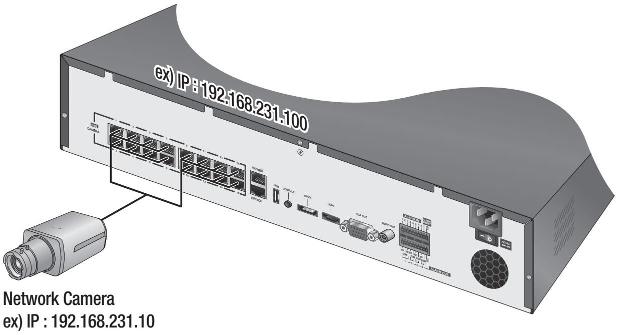
connecting with other device

Connecting to Internet through PPPoE

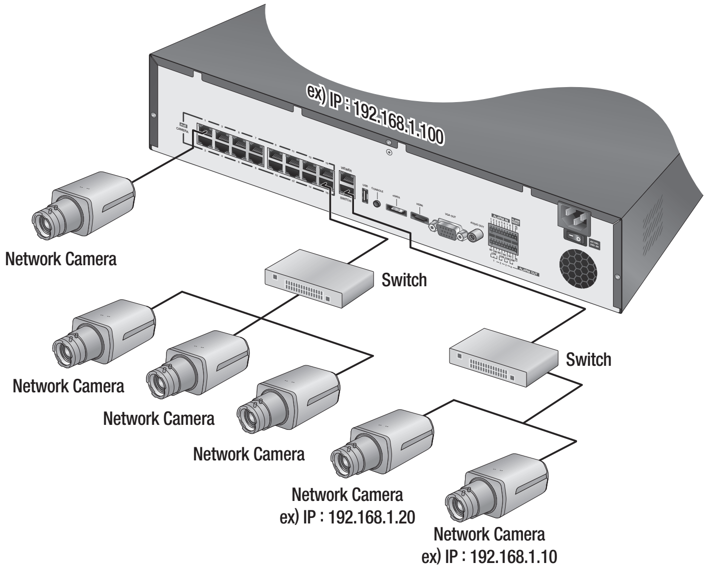

NETWORK
Phone(PPPoE)
Line
Switch
PPPoE MODEM
Switch
Windows
Network Viewer
Network Camera
Network Camera

Connecting the network camera

PnP mode


ex) IP : 192.168.231.100
Network Camera
ex) IP : 192.168.231.10

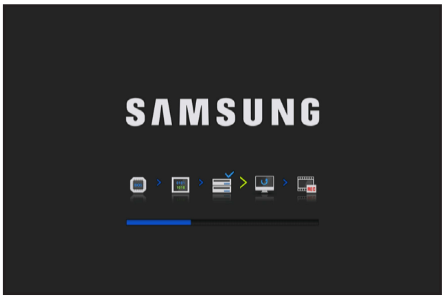
Manual mode


ex) IP : 192.168.1.100
Network Camera
Switch
Network Camera
Network Camera
Network Camera
Switch
Network Camera
ex) IP : 192.168.1.20
Network Camera
ex) IP : 192.168.1.10

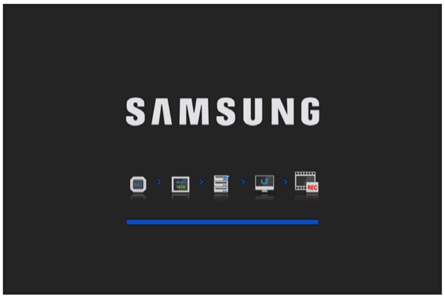
GETTING STARTED

Starting the system

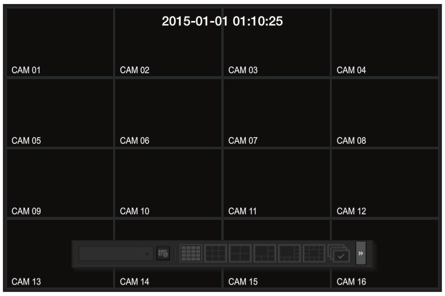
1. Connect the power cable of the NVR to the wall outlet.



2. You will see the initialization screen.
   The initialization process will last about 2 minute.
   If a new HDD is installed, the initialization process may take longer.

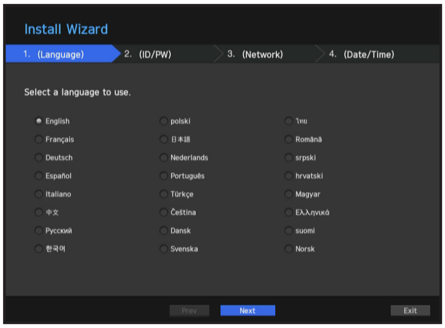


3. The live screen appears with a beep.


2015-01-01 01:10:25
CAM 01
CAM 02
CAM 03
CAM 04
CAM 05
CAM 06
CAM 07
CAM 08
CAM 09
CAM 10
CAM 11
CAM 12
CAM 13
CAM 14
CAM 15
CAM 16

Install Wizard

As shown below, proceed through each step of the <**Install Wizard**>.



Install Wizard

Select a language to use.

1. (Language)
2. (ID/PW)
3. (Network)
4. (Date/Time)
English
Français
Deutsch
Español
Italiano
中文
Русский
한국어
polski
日本語
Nederlands
Português
Türkçe
Čeština
Dansk
Svenska
ไทย
Română
srpski
hrvatski
Magyar
Ελληνικά
suomi
Norsk
Prev
Next
Exit

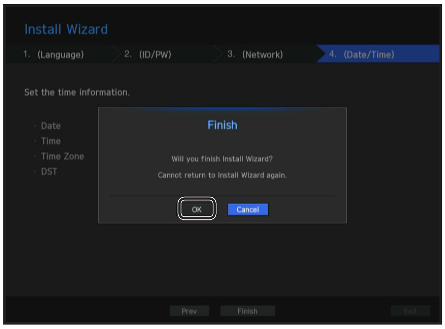
1. In the <**Language**> screen, select the language and press the <**Next**> button.
2. In the <**ID/PW**> screen, set the password and press <**Next**>.

- If you click < ⓘ >, a basic guide for password setup is displayed.

3. In the <**Network**> screen, set the network access method and the access environment. To use a simple intranet, click <**Next**>.

- Network 1 (Camera) : Connects to the camera and receives the video feed from the camera
- Network 2 (Viewer) : This is a port for transmitting an image to the webviewer.
- Network 1 / Network 2 Setup
  - IP Type : Choose the network connection method.
  - IP Address, Subnet Mask, Gateway, DNS

- If the LAN cable is not connected to the port, the setting button will not be activated for use. Check the LAN cable connection.
- The built-in DHCP Server in NVR will turn on automatically at stage 3. At this stage, using the existing DHCP server in the same network may cause a problem, as two DHCP servers would be simultaneously operating.
- For more details on network settings, refer to the user manual.



Install Wizard

Set the time information.

Finish

Will you finish Install Wizard?

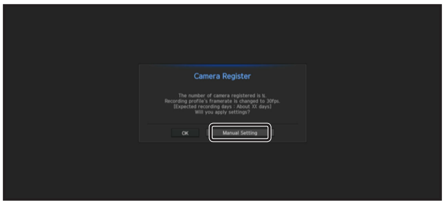
Cannot return to Install Wizard again.

1. (Language)
2. (ID/PW)
3. (Network)
4. (Date/Time)
Date
Time
Time Zone
DST
OK
Cancel
Prev
Finish
Exit

4. After setting the date/time settings in the <**Date/Time**> screen, click on the <**Finish**> button to launch the setting completion window.
5. In the setting completion window, click on the <**OK**> button to finish camera setting and launch the camera registration screen.

6. If there are 16 or less cameras searched, it will be automatically registered and the camera information(fps, days of recording) will be displayed.

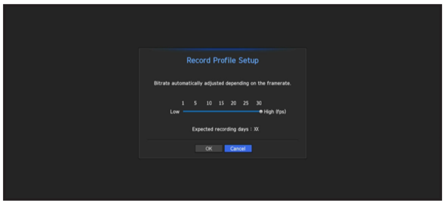
- **If there are 16 or less cameras searched**



Camera Register

The number of camera registered is N.
Recording profile's framerate is changed to 30fps.
[Expected recording days : About XX days]
Will you apply settings?

1. The searched camera will be automatically registered and the initial recording value will be displayed.



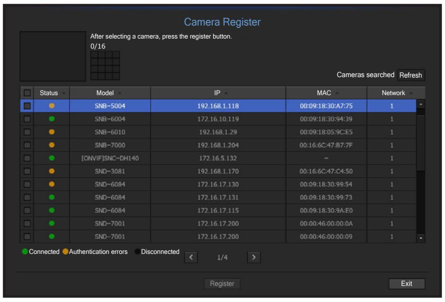
Record Profile Setup

Bitrate automatically adjusted depending on the framerate.

Expected recording days : XX

2. In the camera registration window, click the <**Cancel**> button to modify the recording settings automatically set.

- **If there are more than 16 cameras searched**



Camera Register

After selecting a camera, press the register button.
0/16

Cameras searched

☐	Status	Model	IP	MAC	Network
☐	🟠	SNB-5004	192.168.1.118	00:09:18:30:A7:75	1
☐	🟢	SNB-6004	172.16.10.119	00:09:18:30:94:39	1
☐	🟠	SNB-6010	192.168.1.29	00:09:18:05:9C:E5	1
☐	🟠	SNB-7000	192.168.1.204	00:16:6C:47:B7:7F	1
☐	🟢	[ONVIF]SNC-DH140	172.16.5.132	–	1
☐	🟠	SND-3081	192.168.1.170	00:16:6C:47:C4:50	1
☐	🟠	SND-6084	172.16.17.130	00:09:18:30:99:54	1
☐	🟢	SND-6084	172.16.17.131	00:09:18:30:99:73	1
☐	🟢	SND-6084	172.16.17.115	00:09:18:30:9A:E0	1
☐	🟢	SND-7001	172.16.17.200	00:00:46:00:00:0A	1
☐	🟢	SND-7001	172.16.17.200	00:00:46:00:00:09	1

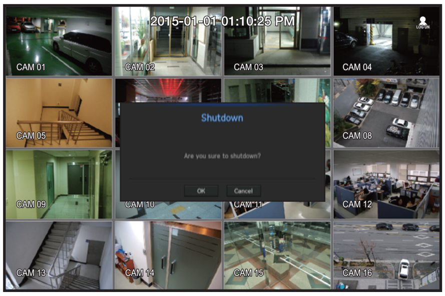
🟢 Connected 🟠 Authentication errors ● Disconnected

1/4

Select a camera to register and click the <**Register**> button. Once camera registration is finished, proceed in the same steps as after auto registration.

Shutting Down the System

1. Press the [**POWER**] button for your remote controller or select <**Shutdown**> in the live screen menu.
2. The “**Shutdown**” confirmation pop-up window will appear.
3. Using the directional button on your remote control, select <**OK**> and press the [**ENTER**] button or click on <**OK**>.
   The system will shut down.


2015-01-01 01:10:25 PM
CAM 01
CAM 02
CAM 03
CAM 04
CAM 05
CAM 08
CAM 09
CAM 10
CAM 11
CAM 12
CAM 13
CAM 14
CAM 15
CAM 16
Shutdown
OK
Cancel

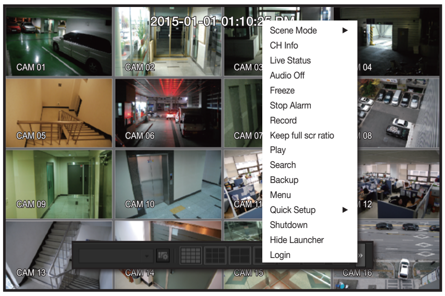
Are you sure to shutdown?

- Only the user with the "**shutdown**" permission can shut down the system.
- For the permission management, refer to "**User** > **Setting Permissions**". (Page 63)

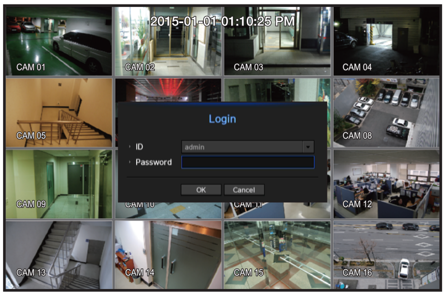
Login

If you want to use the NVR menu, you need to login as a user with the privileges to access it.

1. In the live mode screen, right click the mouse button or press the [**MENU**] button on your remote control.
   You will see the context menu on the screen as shown.


2015-01-01 01:10:2
CAM 01
CAM 02
CAM 03
CAM 05
CAM 06
CAM 07
CAM 09
CAM 10
CAM 11
CAM 13
CAM 14
CAM 15
CAM 16
Scene Mode ▶
CH Info
Live Status
Audio Off
Freeze
Stop Alarm
Record
Keep full scr ratio
Play
Search
Backup
Menu
Quick Setup ▶
Shutdown
Hide Launcher
Login

2. Select <**Login**>.
   The login dialog appears.


2015-01-01 01:10:25 PM
CAM 01
CAM 02
CAM 03
CAM 04
CAM 05
CAM 08
CAM 09
CAM 10
CAM 11
CAM 12
CAM 13
CAM 14
CAM 15
CAM 16
Login
OK
Cancel

ID: admin
Password:

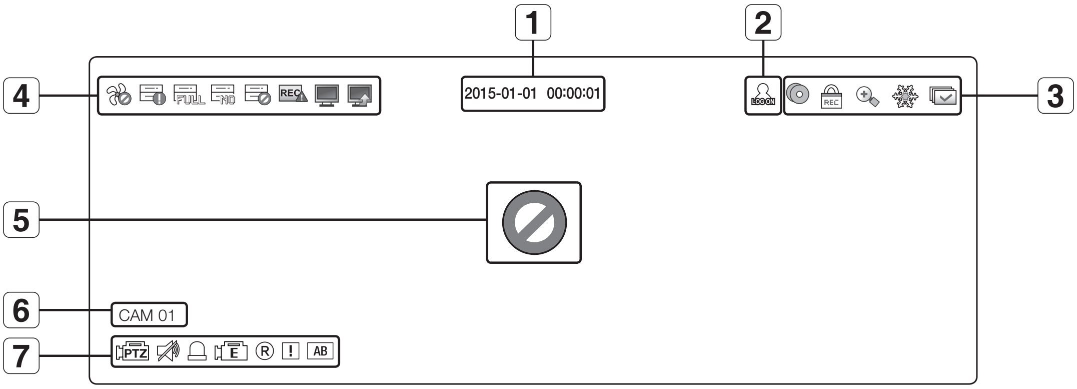
- Even if you press the menu button that requires a login with the remote control, the login screen will appear.
- The first administator ID is "**admin**" and the password must be set in the Installation Wizard.
- Set password for your wireless network if you use the product with a wireless router. Being not protected with password or using the default wireless router password may expose your video data to potential threat.
- Please change your password every three months to safely protect personal information and to prevent the damage of the information theft.
  Please, take note that it’s a user’s responsibility for the security and any other problems caused by mismanaging a password.

- To change access privileges, refer to "**User** > **Setting Permissions**". (Page 63)

LIVE SCREEN CONFIGURATION

Icons on the Live Screen

You can check the status or operation of the NVR with the icons on the live screen.



Name			Description
1	Current Date, Time		Displays the current time and date.
2	Login Information		When you are logged in, the "**LOG ON**" icon will be displayed.
3	Screen Mode	◎	It is displayed when there is ongoing backup in the live condition.
		REC	If access to the recording canceling menu is restricted, then it is only displayed when there is ongoing manual recording. ■ Only a user with the right to cancel recording can do so.
		🔍	It is displayed when the magnifying function is in operation.
		❄	This icon is displayed when you press the Freeze button.
		☑	It is displayed when all the channels are switched at the set time interval.
4	System Operation	⊘	It is displayed when there is a problem with the fan.
		!	It is displayed when the recording data cannot be received properly due to a device problem.
		FULL	Displayed if the HDD is full and the NVR has an insufficient space to record.
		NO	Displayed if no HDD is installed or the existing HDD should be replaced.
		⊘	Displayed if the HDD needs a technical examination.

Name			Description
4	System Operation	REC⚠	It is displayed when the max permitted amount of data for each channel is exceeded.
		🖥	It is displayed when the network is overloaded. ■ It occurs when the max receiving allowance is exceeded, causing an overload to the CPU. It will disappear if you modify the camera settings or delete a camera to reduce the performance burden.
		🖥⇧	It is displayed when there is firmware to update the server.
5	Video Input Status	⊘	Displayed if no input is entered in the condition that the camera is set to <**ON**>.
		SAMSUNG	Displayed if no permission to live view is granted.
			If a camera is <**OFF**>, or if no camera is registered, or it is in <**Covert2**> mode, nothing will be displayed on the screen. If the camera is set to <**Covert1**>, the video will be displayed but the OSD menus will not be displayed.
6	Camera Title / Channel		Display the camera title and channel number.
7	Camera Operation	PTZ	This icon is displayed for a channel that a PTZ-featuring camera is connected to.
		🔇	Displays AUDIO ON/MUTE. Not displayed in video mode if deactivated.
		🔔	If the sensor is set to <**ON**>, the input signal will be displayed on the screen of the connected channel.
		E	This icon is displayed when Motion Detection is set to <**ON**> and a camera motion or camera event occurs.
		Ⓡ/Ⓔ/Ⓢ	It displays the status of general/event/scheduled recording.
		!	It is displayed when it fails to decode all the frames due to limited decoding performance and in this case only the I-Frame is decoded.
		AB	This is displayed when a POS (text) event occurs.

Error Information

- If the built-in HDD is not connected, the “NO HDD” icon (🖴) will be displayed in the top left corner. In this case, make sure you contact the service center for assistance as this may cause a failure of recording, playback or backup.
- If the cooling fan does not work properly or has a problem, the <**Fan Information**> window will appear and the fan error icon (⊘) will be displayed on the top left corner.
  In this case, check to see if the internal fan works.
  As a fan error can shorten the product life, make sure you contact the service center for assistance.

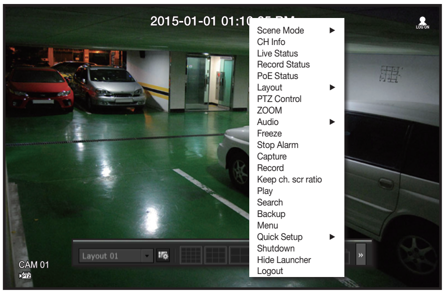
■ If you see the fan error icon or NO HDD, HDD FAIL icons on the screen, contact the service center for more details.

Live Screen Menu

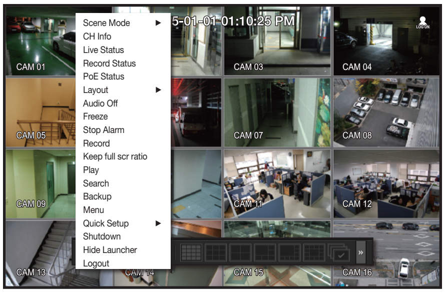
Beside the functional buttons for your remote control, in the live screen mode, you can right click with the mouse button or press the [**MENU**] button on your remote control to launch the live screen menu from where you can access each menu from.

The context menu differs depending on the state of Log in/out, split mode, and NVR operation status.

■ Live view, backup, recording, stopping recording, search, PTZ, remote alarlm output, and termination menus can be restricted in use depending on user privilege settings.


2015-01-01 01:10
Scene Mode ▶
CH Info
Live Status
Record Status
PoE Status
Layout ▶
PTZ Control
ZOOM
Audio ▶
Freeze
Stop Alarm
Capture
Record
Keep ch. scr ratio
Play
Search
Backup
Menu
Quick Setup ▶
Shutdown
Hide Launcher
Logout
LOG ON
Layout 01
CAM 01
PTZ

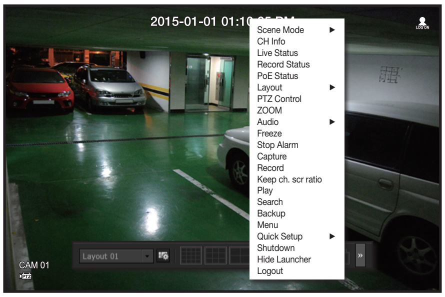
< Single Mode Menu >


5-01-01 01:10:25 PM
Scene Mode ▶
CH Info
Live Status
Record Status
PoE Status
Layout ▶
Audio Off
Freeze
Stop Alarm
Record
Keep full scr ratio
Play
Search
Backup
Menu
Quick Setup ▶
Shutdown
Hide Launcher
Logout
LOG ON
CAM 01
CAM 03
CAM 04
CAM 05
CAM 07
CAM 08
CAM 09
CAM 11
CAM 12
CAM 13
CAM 14
CAM 15
CAM 16

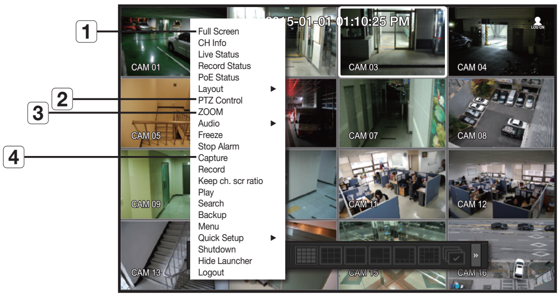
< Split Mode Menu >

Single Mode Menu

The single mode menu is available only in Single Mode.
If the menu is displayed as <**Screen Mode**> in the single screen, it is displayed as a <**Full Screen**> in the menu where only one channel is selected in the split screen.


2015-01-01 01:10:25 PM
Scene Mode ►
CH Info
Live Status
Record Status
PoE Status
Layout ►
PTZ Control
ZOOM
Audio ►
Freeze
Stop Alarm
Capture
Record
Keep ch. scr ratio
Play
Search
Backup
Menu
Quick Setup ►
Shutdown
Hide Launcher
Logout
CAM 01
Layout 01
LOG ON

< Single Mode Menu >

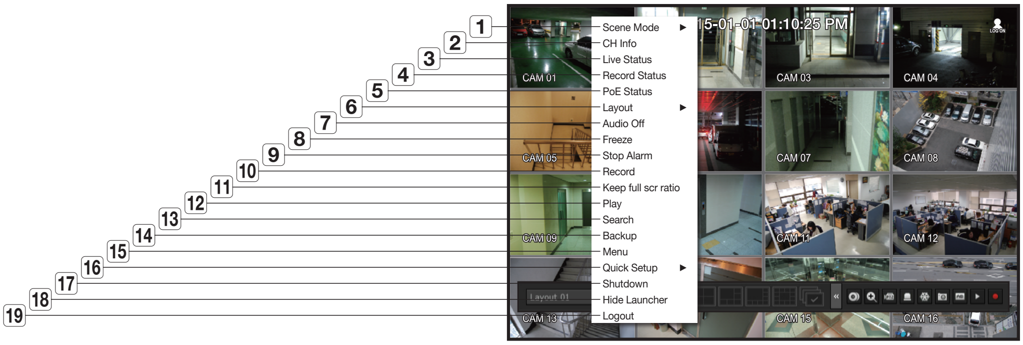

1
2
3
4
2015-01-01 01:10:25 PM
Full Screen
CH Info
Live Status
Record Status
PoE Status
Layout ►
PTZ Control
ZOOM
Audio ►
Freeze
Stop Alarm
Capture
Record
Keep ch. scr ratio
Play
Search
Backup
Menu
Quick Setup ►
Shutdown
Hide Launcher
Logout
CAM 01
CAM 03
CAM 04
CAM 05
CAM 07
CAM 08
CAM 09
CAM 11
CAM 12
CAM 13
CAM 15
CAM 16
LOG ON

< One channel selection menu in the split screen >

Menu		Description
1	**Full Screen**	Select and click a desired channel in Split mode to switch to the full screen of the selected channel.
2	**PTZ Control**	Accesses the PTZ Control menu. The PTZ menu will be active on the Live screen after you select a single channel. (Page 56)
3	**ZOOM**	You can enlarge the selected screen. (Page 49)
4	**Capture**	Captures the screen of the selected channel.

Split Mode Menu

In Live split mode, right-click to display this context menu as shown.
The context sensitive menu in split mode differs, depending on the login/logout status.

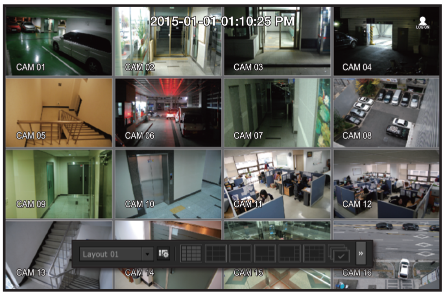

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
Scene Mode ►
CH Info
Live Status
Record Status
PoE Status
Layout ►
Audio Off
Freeze
Stop Alarm
Record
Keep full scr ratio
Play
Search
Backup
Menu
Quick Setup ►
Shutdown
Hide Launcher
Logout
5-01-01 01:10:25 PM
CAM 01
CAM 03
CAM 04
CAM 05
CAM 07
CAM 08
CAM 09
CAM 11
CAM 12
CAM 13
CAM 15
CAM 16
Layout 01

Menu		Description
1	**Screen Mode**	Select a screen mode for the Live screen. Refer to "**Live screen mode**". (Page 45)
2	**CH Info**	It displays the camera connection information for each channel. Refer to the "**Channel Information**". (Page 47)
3	**Live Status**	Shows the live status of connected camera to each channel. Refer to "**Live Status**". (Page 48)
4	**Record Status**	Shows the record status of each channel. Refer to "**Record Status**". (Page 48)
5	**PoE Status**	Set the PoE status in each channel. Refer to the "**PoE Status**". (Page 50)
6	**Layout**	Set the layout of each channel. Refer to "**Layout**". (Page 51)
7	**Audio On/Off**	Turns ON/MUTE the sound of the selected channel. Refer to "**Audio ON/OFF**". (Page 52)
8	**Freeze**	Stop playing the video temporarily. Refer to "**Freeze**". (Page 52)
9	**Stop Alarm**	Stop the alarm output, deactivate the event icon and release the auto sequencing. Refer to "**Event Monitoring**". (Page 53)

Menu		Description
10	**Record/Stop**	Starts/stops the standard recording.
11	**Keep full scr ratio/ Keep ch. scr ratio**	Channel screen ratio is changed. Refer to "**Maintain the Screen Ratio**". (Page 54)
12	**Play**	Refer to "**Search & Play** > **Play**". (Page 113)
13	**Search**	Refer to "**Search & Play** > **Search**". (Page 109)
14	**Backup**	Searches for a backup device and runs backup for each channel or schedule backup later at a more preferable time.
15	**Menu**	Enter the main menu. Refer to the menu settings. (Page 59)
16	**Quick Setup**	The "**Camera Register**" & "**Recording Setup**" screen will immediately appear.
17	**Shutdown**	The system shutdown dialog will appear.
18	**Show/Hide Launcher**	Shows or hides the launcher. Refer to "**View the Launcher Menu**". (Page 44)
19	**Login/Logout**	You can log in or out.

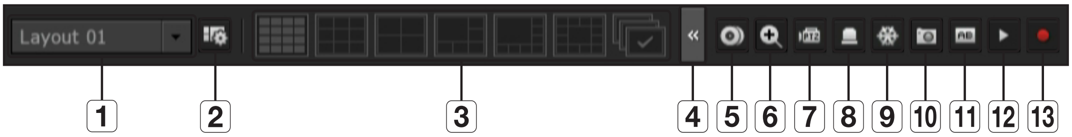
View the Launcher Menu

The Launcher menu appears on the bottom of the live screen.



1. Select <**Show Launcher**> in the context menu of the Live screen.
2. Move the cursor to the bottom and click a desired item in the Launcher menu.

- If no input is entered for 10 seconds, the menu will disappear.
- The Launcher menu can be accessed only by using the mouse.
- SRN-473S only supports full screen, 4-split screen, and automatic switchover screen.
- SRN-873S does not support 13/16-split screen.



Menu		Description
1	Layout	Select the layout to be displayed on the screen.
2	Layout Setup	You can set, change or delete the new layout of each channel.
3	Screen Mode	Displays a list of split modes available in a bar type. The current screen mode will be displayed grey.
4	Menu Expansion Button	Click to display the hidden menu to the right.
5	Backup	Searches for a backup device and runs backup of each channel or schedule it for later at a more desirable time.
6	Zoom	Enlarges the selected area. This is available only in Single Live mode.
7	PTZ	If the network camera connected to the selected channel supports the PTZ operations, this will run the PTZ control launcher. This is active only in Live single mode.
8	Alarm	Stops the alarm if it's activated.
9	Freeze	Freezes the Live screen temporarily.
10	Capture	Captures the screen of the selected channel.
11	Text	Text output is ON or OFF.
12	Play	Enters Play mode if a file to play exist, and if not, enters Search mode.
13	Record	Start/End recording the Live screen.

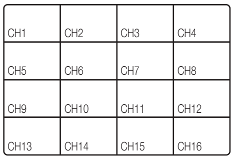
LIVE SCREEN MODE

16 live videos are displayed in a single screen, 6 kinds of split screens, and an automatic switchover screen.

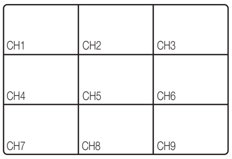
Method for displaying screen mode

If you want to change the split mode, select a screen mode suggested in the launcher menu or right click with the mouse button and select a split mode in the screen mode menu.
Press the [**MODE**] button on your remote controller to change it in the order suggested in the launcher menu.

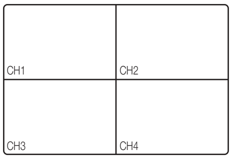
- SRN-473S only supports full screen, 4-split screen, and automatic switchover screen.
- SRN-873S does not support 13/16-split screens.


CH1
CH2
CH3
CH4
CH5
CH6
CH7
CH8
CH9
CH10
CH11
CH12
CH13
CH14
CH15
CH16

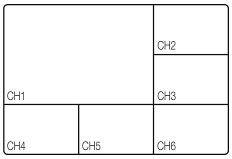
16-split mode


CH1
CH2
CH3
CH4
CH5
CH6
CH7
CH8
CH9

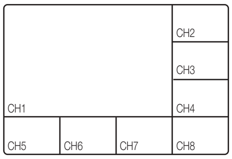
9-split mode


CH1
CH2
CH3
CH4

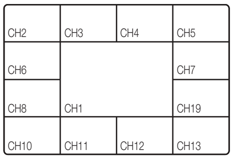
4-split mode


CH2
CH1
CH3
CH4
CH5
CH6

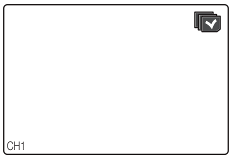
6-split mode


CH2
CH3
CH1
CH4
CH5
CH6
CH7
CH8

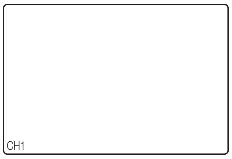
8-split mode


CH2
CH3
CH4
CH5
CH6
CH7
CH8
CH1
CH19
CH10
CH11
CH12
CH13

13-split mode



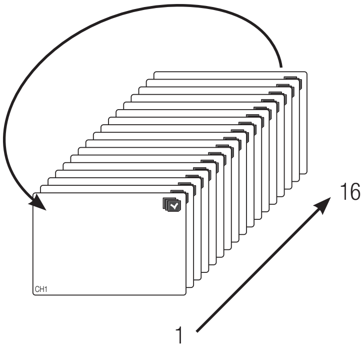
Auto Sequence



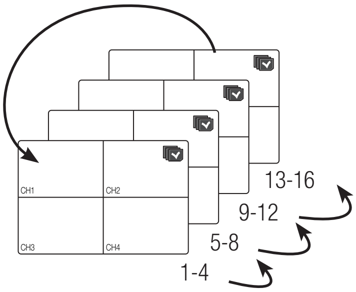
Single mode

Auto screen switching

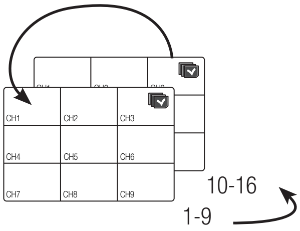
SRN-1673S can display 16 live videos sequentially in full screen, 4-split screen, and 9-split screen.



Single mode


CH1
CH2
CH3
CH4
13-16
9-12
5-8
1-4

4-split mode


CH1
CH2
CH3
CH4
CH5
CH6
CH7
CH8
CH9
10-16
1-9

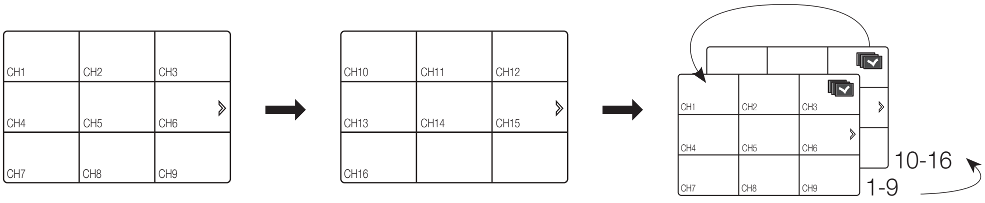
9-split mode

- In a split mode, If you have set <**Sequence switching time**> in "**Device** > **Monitor**", Auto Sequence will be conducted at the set interval. (Page 85)
- When a channel is changed, a video may be displayed delayed due to the network environment.

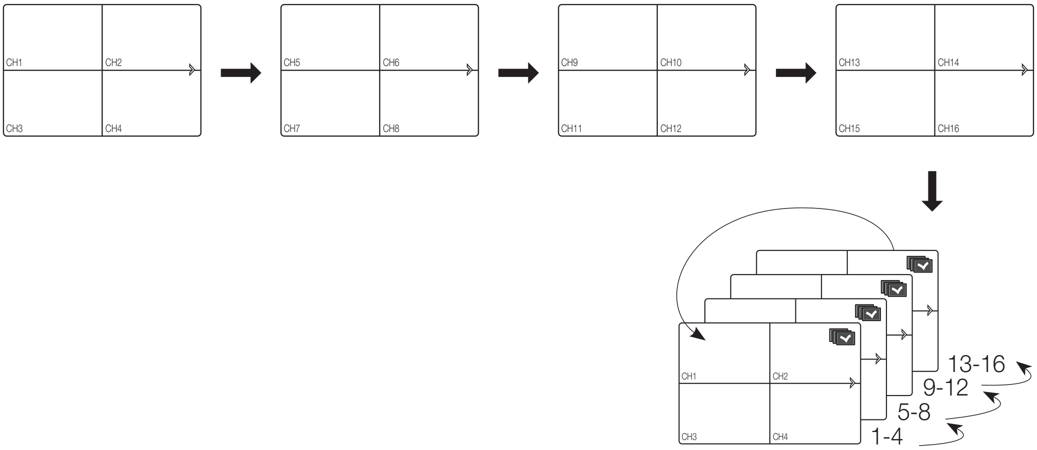
Manually change the screen

Press the left/right button on the front panel or the remote control, or click the arrow <◀/▶> key to move to the next split mode.

- If pressing the right [▶] button in 9-split mode :
  9-split (CH 1~9) mode ➞ 9-split (CH 10~16) mode ➞ Auto Sequence


CH1
CH2
CH3
CH4
CH5
CH6
CH7
CH8
CH9
CH10
CH11
CH12
CH13
CH14
CH15
CH16
CH1
CH2
CH3
CH4
CH5
CH6
CH7
CH8
CH9
10-16
1-9

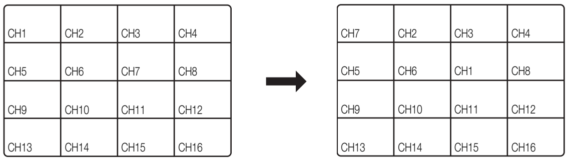
- If pressing the right [▶] button in 4-split mode :
  Channel (CH 1~4) ➞ Channel (CH 5~8) ➞ Channel (CH 9~12) ➞ Channel (CH 13~16) ➞ Auto Sequence


CH1
CH2
CH3
CH4
CH5
CH6
CH7
CH8
CH9
CH10
CH11
CH12
CH13
CH14
CH15
CH16
CH1
CH2
CH3
CH4
13-16
9-12
5-8
1-4

Channel Setting

You can display the channel in a desired area of a split screen.

1. Place the cursor over the camera name of each channel to display the <▼> key to the right on the screen.
2. Click a camera name to display a channel list where you can select a different channel.
3. Select a desired channel and click it.
   The selected channel is displayed in the screen.
   If you want to change the channel location, you can place your mouse cursor over the desired location.
   - Ex : If you want to change channel 1 area to channel 7 area.


CH1
CH2
CH3
CH4
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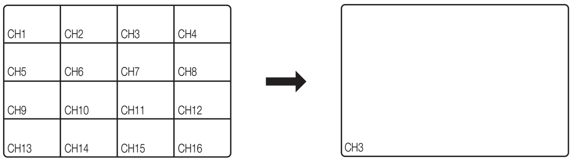
CH6
CH7
CH8
CH9
CH10
CH11
CH12
CH13
CH14
CH15
CH16
CH7
CH2
CH3
CH4
CH5
CH6
CH1
CH8
CH9
CH10
CH11
CH12
CH13
CH14
CH15
CH16

Switching to Single Mode

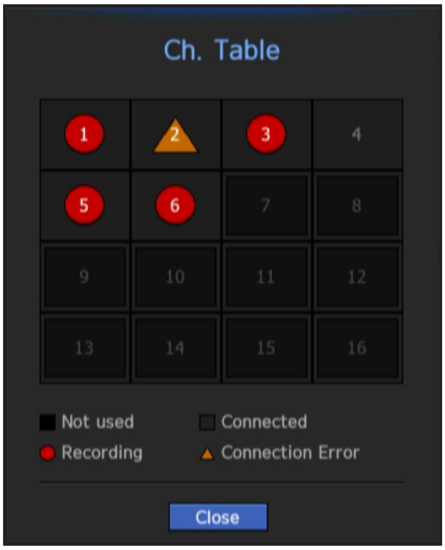
Double click with the mouse button on the desired channel in the split screen to switch the screen to the single screen.
Press the channel number button on the remote control to switch to single screen.
Refer to "**Remote Controller** > **Using the Number Button**". (Page 16)

- Ex : With your mouse, double click on channel 3 or press the number 3 on the remote control.


CH1
CH2
CH3
CH4
CH5
CH6
CH7
CH8
CH9
CH10
CH11
CH12
CH13
CH14
CH15
CH16
CH3

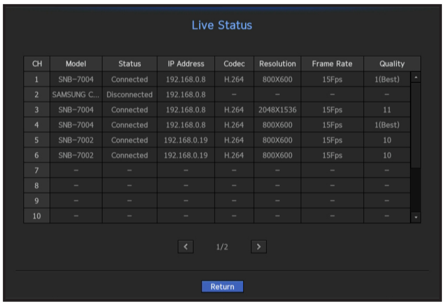
Channel information

Select the <**CH Info**> in the live screen menu to check the status of camera connection to each channel.


Ch. Table
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
■ Not used
□ Connected
● Recording
▲ Connection Error
Close

Live Status

Select <**Live Status**> from the live screen menu to display status and transfer information of connected camera to each channel.



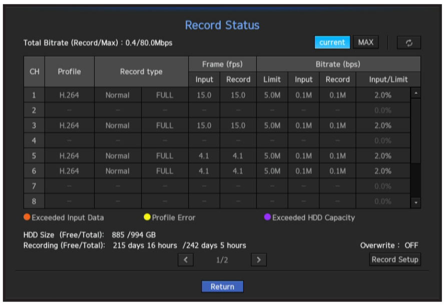
Live Status

CH	Model	Status	IP Address	Codec	Resolution	Frame Rate	Quality
1	SNB-7004	Connected	192.168.0.8	H.264	800X600	15Fps	1(Best)
2	SAMSUNG C...	Disconnected	192.168.0.8	–	–	–	–
3	SNB-7004	Connected	192.168.0.8	H.264	2048X1536	15Fps	11
4	SNB-7004	Connected	192.168.0.8	H.264	800X600	15Fps	1(Best)
5	SNB-7002	Connected	192.168.0.19	H.264	800X600	15Fps	10
6	SNB-7002	Connected	192.168.0.19	H.264	800X600	15Fps	10
7	–	–	–	–	–	–	–
8	–	–	–	–	–	–	–
9	–	–	–	–	–	–	–
10	–	–	–	–	–	–	–

- Model : Displays the camera model name connected to each channel.
- Status : Displays the status of camera connection set to each channel.
- IP Address : Displays the IP address of a camera set to each channel.
- Codec : Displays the live profile codec information for a camera set to each channel.
- Resolution : Displays the live profile resolution of a camera set to each channel.
- Frame Rate : Displays the live profile transmission rate for a camera set to each channel.
- Quality : Displays the live profile transmission quality of a camera set to each channel.

Record Status

Select <**Record Status**> from the live screen menu to display camera profile, input/recording frame rates, input/limit/recording bps of each channel.



Record Status

Total Bitrate (Record/Max) : 0.4/80.0Mbps

CH	Profile	Record type		Frame (fps)		Bitrate (bps)			
				Input	Record	Limit	Input	Record	Input/Limit
1	H.264	Normal	FULL	15.0	15.0	5.0M	0.1M	0.1M	2.0%
2	–	–	–	–	–	–	–	–	0.0%
3	H.264	Normal	FULL	15.0	15.0	5.0M	0.1M	0.1M	2.0%
4	–	–	–	–	–	–	–	–	0.0%
5	H.264	Normal	FULL	4.1	4.1	5.0M	0.1M	0.1M	2.0%
6	H.264	Normal	FULL	4.1	4.1	5.0M	0.1M	0.1M	2.0%
7	–	–	–	–	–	–	–	–	0.0%
8	–	–	–	–	–	–	–	–	0.0%

● Exceeded Input Data ● Profile Error ● Exceeded HDD Capacity

HDD Size (Free/Total): 885 /994 GB
Recording (Free/Total): 215 days 16 hours /242 days 5 hours
Overwrite : OFF

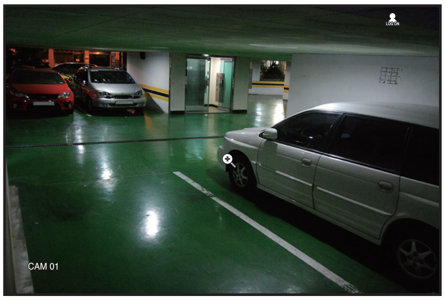
- Total Bitrate (Record/Max) : Record bitrate shows the amount of actual data recording while Total bitrate shows the maximum data transfer allowed by the NVR.
- Profile : Shows the video profile configured to each channel.
- Frame (fps) : Show the input/record frames per second for each channel.
- Bitrate (bps)
  - Limit / Input / Record : Shows the amount of limit/input/recording data for each channel.
  - Input / Limit : Shows the data ratio of actual data transferred from the camera and allowed maximum defined by user.
- current : Shows the recording status information of currently transferred data.
- MAX : Shows recording information of the most biggest recording data out of configured standard and event recordings.
- : Reloads the recording information.
- Record Setup : The menu screen will switch to the record setting screen.

- The warning message on the list's bottom means the NVR replaced the selected recording profile with other available profile, since the selected one does not produce video data which prohibits screen saving. If the screen displays video, it automatically resets to the selected profile and its name turns to yellow in the list.
- If Key Frame recording exceeds the allowed data amount specified by limit bitrate, a popup alert and icon appear on the screen.
  The limited recording alert popup does not repeat after displaying once unless camera or recording settings are changed; it may appear again if settings were changed to notify such status.
  If you want to set the alert popup not to appear, change your setting of <**Setup Warnings**> not to display a message popup.
  For further information on bitrate limit of recording data, refer to "**Record Setting**". (Page 90)

ZOOM

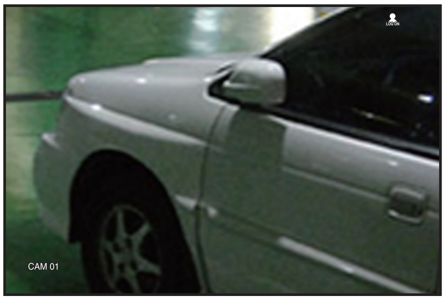
This is activated only in Live Single mode.
After selecting a single screen, if you use the Magnify function, the selected area will be magnified by 2.

1. In the live screen menu, select <**ZOOM**>.
   Press the [**ZOOM**] button on your remote control or click < 🔍 > on the launcher menu.
   The Magnify icon in the middle of the screen will be displayed.
2. You can use the remote control's directional key(▲▼◄►) or drag with the mouse to set the area of magnification.
3. Press the [**ENTER**] button or double click with the mouse to magnify the selected area by two times.
   - In the magnified screen, you can drag with the mouse or use the remote control's navigational key (▲▼◄►) to move the magnified area.
4. In the live screen menu, select <**Zoom Out**>.
   Press the [**ZOOM**] button on your remote control or click < 🔍 > on the launcher menu to cancel the magnification function.



<Normal>

➞

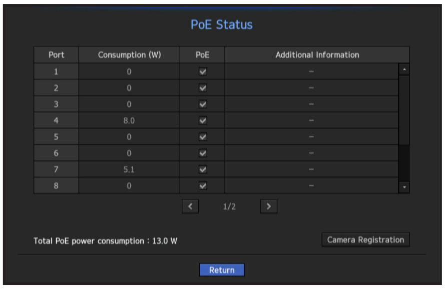


<Enlarged twice>

POE STATUS

In the live screen, you can see the PoE status of each port.

1. Select the <**PoE Status**>.
   PoE status view window is displayed.



PoE Status

Port	Consumption (W)	PoE	Additional Information
1	0	☑	–
2	0	☑	–
3	0	☑	–
4	8.0	☑	–
5	0	☑	–
6	0	☑	–
7	5.1	☑	–
8	0	☑	–

Total PoE power consumption : 13.0 W

- Consumption(W) : Displays the power consumption in PoE.
  - 0 : No device is connected to the port or a device is using its own power supply.
  - **–** : Trouble in the port (More detailed trouble information can be displayed in additional information.)

- Overall PoE power specifications are as follows: SRN-1673S(16 ports) is 200W, SRN-873S(8 ports) is 100W, and SRN-473S(4 ports) is 50W.
  If a single port exceeds 36W, or the power to all ports exceeds the overall PoE power specifications, the power to ports will be shut off sequentially.

- PoE : Turns on/off the power supply to the camera.
  If checked, it means the power supply is On; if not checked, it means it is Off.
- Additional information : If there is a problem in the power supply, it is explained here.
  Power supply problems include excessive power (class 1 to 4) and voltage errors.
- Total PoE power consumption : Display the sum of power consumption for all the ports.

2. Press <**Return**> to move to the previous screen.

Noise level according to PoE power consumption

Model	Noise Level [dB]	PoE Power
SRN-1673S	50	196W
	48	154W
	47	138W

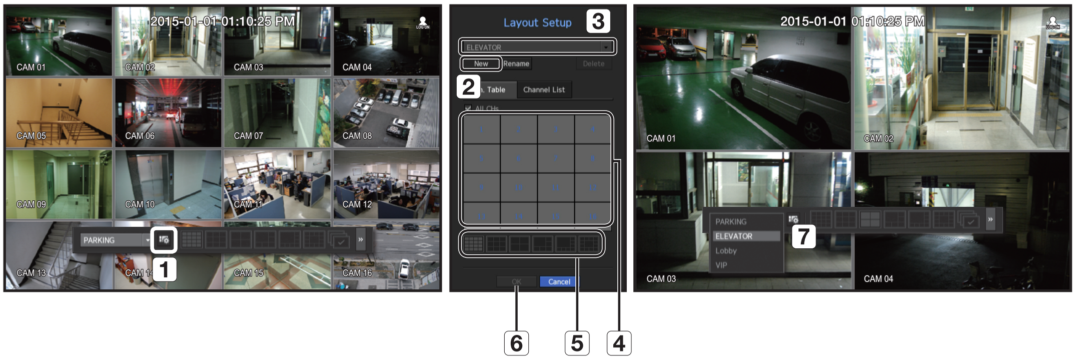
LAYOUT

In the live screen, you can set the layout for each channel.

Setting Up the Live Layout

This section outlines how to select a series of channels based on their purpose/accessibility and monitor them in a single layout.

Example) Layout "Lobby" - Lobby camera 1, Lobby camera 2, Front entrance camera 2
Layout "VIP" - Directors' meeting room 1, Directors' meeting room 2, Directors' lounge 1, Corridor camera on the 7th floor


2015-01-01 01:10:25 PM
CAM 01
CAM 02
CAM 03
CAM 04
CAM 05
CAM 06
CAM 07
CAM 08
CAM 09
CAM 10
CAM 11
CAM 12
CAM 13
CAM 15
CAM 16
PARKING
1
Layout Setup
3
ELEVATOR
New
Rename
Delete
2
Ch. Table
Channel List
All CHs
OK
Cancel
2015-01-01 01:10:25 PM
CAM 01
CAM 02
PARKING
ELEVATOR
Lobby
VIP
7
CAM 03
CAM 04
6
5
4

To create a new layout, follow these steps:

1 Open the channel layout setup menu.
2 Click <**New**>.
3 Enter a name for the selected channels (e.g., ELEVATOR).
4 Select the channels that you want to add to the layout (e.g., 2, 7, 10, 15).
5 Choose a split mode to apply (e.g., 4-way split).
6 Click <**OK**>.
7 Choose a layout to view it on the screen (e.g., change to ELEVATOR).

1. Select the < >.
   The layout setting screen will appear.

- New : You can set the new layout.
- Rename : You can make changes to the selected layout.
  When the layout is changed, the channel order is initialized.
- Delete : You can delete the selected layout.
- Ch. Table : You can select channels in the table to be registered in, or removed from the layout.
- Channel List : You can select channels in the list to be registered in, or removed from the layout.

2. Press the <**New**> button and enter the name of layout to add.
3. In the <**Ch. Table**> or <**Channel List**>, click and select the channel to be displayed on the layout screen.
4. Click on <**OK**> to save the selected layout.

- The layout for each user is saved separately.

AUDIO ON/OFF

You can turn the sound on/off corresponding to the channel in Live mode.

AUDIO ON/OFF in Single mode

In the screen, click on the audio icon (🔈) or in the remote control, press the [**AUDIO**] button to turn it on/off.

- If there is no audio output even if output is activated, check whether the connected network camera supports audio and audio settings.
  The sound icon can be displayed if the sound signal fails to output from noise.
- Only the channel where <**AUDIO**> is set to <**ON**> in "**Setting the Device** > **Camera**" displays the audio icon (🔈) in Live mode that you can use to turn the sound on/off.

FREEZE

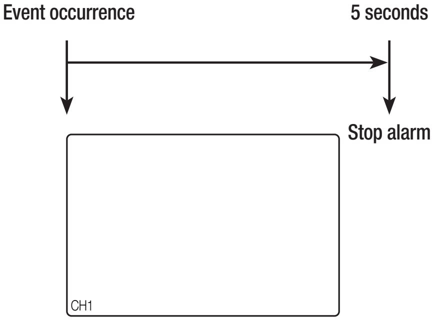
This is available only in Live mode, this pauses playing the Live image temporarily.

1. Press the [**FREEZE**] button on your remote control or click < ❄ > in launcher mode.
   Video playing is paused.
2. Press the [**FREEZE**] button on your remote control or click < ❄ > in launcher mode.
   Pause is canceled. Playing is resumed.

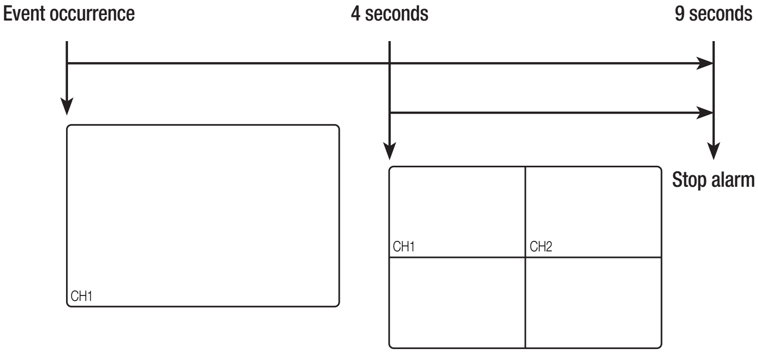
EVENT MONITORING

This will display the channel in sync with a specific event (Sensor/Motion/Video Loss) if it occurs.
In "**Monitor** > **Event Display**", set the event monitoring to ON/OFF and specify the event display time. (Page 85)

- If multiple events occur simultaneously, the screen will switch to a split mode.
  - 2~4 events : 4-split mode
  - 5~9 events : 9-split mode
  - 10~16 events : 16-split mode
- If the second event occurs within the set time of <**Event Display**>, the first event will last until the second one is terminated.
  - Ex : If you set <**Event Display**> to 5 seconds, and only one event occurs in CH 1.



- Ex : If you set <**Event Display**> to 5 seconds, and the second event occurs in CH 2 within the set time after the first event occurred in CH 1.



- Press the [**ALARM**] button or select <**Stop Alarm**> to initialize the alarm output status and cancel the event function.
- If an alarm is output with the pre-event and post-event times specified together with the event recording settings, the event recording will perform according to the specified recording type (pre event or post event).

- In case of continuous events such as motion detection, switching to another split mode display may not immediate if concatenating events follow, even when you stopped alarm of the event.
- The video may be delayed depending on the network condition.
- The event output can be delayed as the transfer of the alarm event from the network camera takes time.

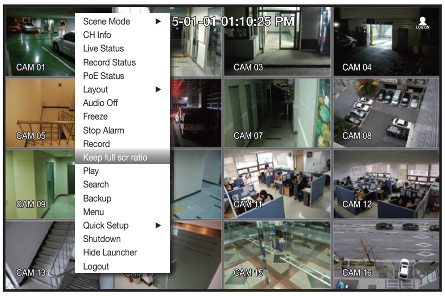
MAINTAIN THE SCREEN RATIO

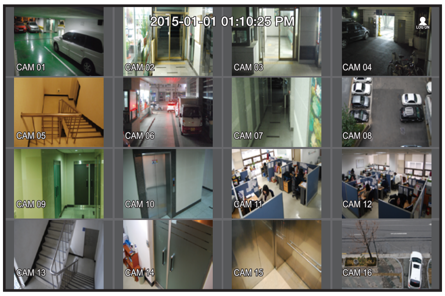
The screen ratio for a live video can be changed.

Maintain a screen ratio for all channels

Video screen ratio for all channels can be changed in live split screen mode.

1. Select <**Keep full scr ratio**> from the live screen menu.
   The screen ratio for all channels will be changed.
2. If you want to go back to the previous screen ratio, check the menu option for <**Keep full scr ratio**>.

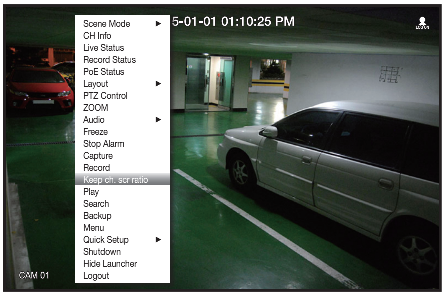

Scene Mode
CH Info
Live Status
Record Status
PoE Status
Layout
Audio Off
Freeze
Stop Alarm
Record
Keep full scr ratio
Play
Search
Backup
Menu
Quick Setup
Shutdown
Hide Launcher
Logout
5-01-01 01:10:25 PM
CAM 01
CAM 03
CAM 04
CAM 05
CAM 07
CAM 08
CAM 09
CAM 11
CAM 12
CAM 13
CAM 15
CAM 16

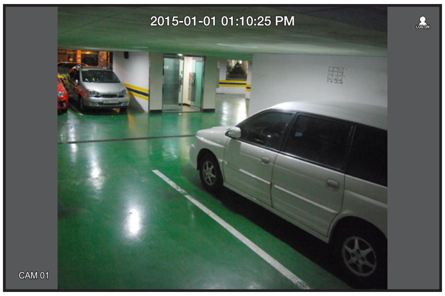

2015-01-01 01:10:25 PM
CAM 01
CAM 02
CAM 03
CAM 04
CAM 05
CAM 06
CAM 07
CAM 08
CAM 09
CAM 10
CAM 11
CAM 12
CAM 13
CAM 14
CAM 15
CAM 16

Maintain a channel screen ratio

If you select a channel from a live single screen or split screen, you can change its video screen ratio.

1. Select <**Keep ch. scr ratio**> from the live screen menu.
   The screen ratio of a specified channel will be changed.
2. If you want to go back to a previous screen ratio, select <**Keep ch. scr ratio**> again.

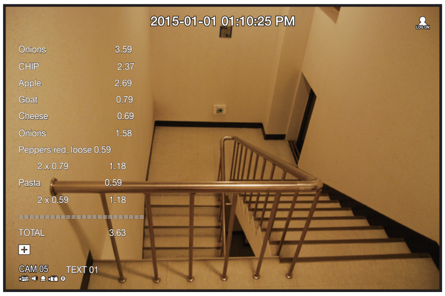

Scene Mode
CH Info
Live Status
Record Status
PoE Status
Layout
PTZ Control
ZOOM
Audio
Freeze
Stop Alarm
Capture
Record
Keep ch. scr ratio
Play
Search
Backup
Menu
Quick Setup
Shutdown
Hide Launcher
Logout
5-01-01 01:10:25 PM
CAM 01


2015-01-01 01:10:25 PM
CAM 01

DISPLAY TEXT

Change text output

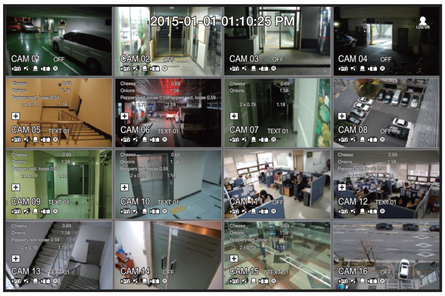
The NVR can display text on a live screen when a text device is set.

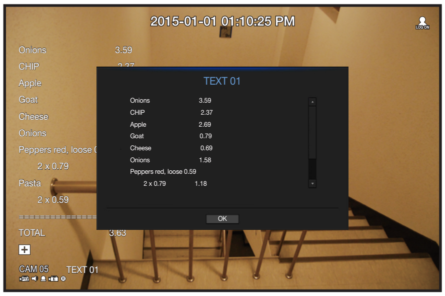

2015-01-01 01:10:25 PM
LOG ON
Onions 3.59
CHIP 2.37
Apple 2.69
Goat 0.79
Cheese 0.69
Onions 1.58
Peppers red, loose 0.59
2 x 0.79 1.18
Pasta 0.59
2 x 0.59 1.18
======================
TOTAL 3.63
CAM 05 TEXT 01

Select text output

This is executable when a text device is connected.

- How to turn the text output off : Select "**OFF**" from the text list.
- How to display on other devices differently from the preset device : Select a device to display from the text list.


2015-01-01 01:10:25 PM
LOG ON
CAM 01 OFF
CAM 02 OFF
CAM 03 OFF
CAM 04 OFF
CAM 05 TEXT 01
CAM 06 TEXT 01
CAM 07 TEXT 01
CAM 08 OFF
CAM 09 TEXT 01
CAM 10 TEXT 01
CAM 11 OFF
CAM 12 TEXT 01
CAM 13 TEXT 01
CAM 14 OFF
CAM 15 TEXT 01
CAM 16 OFF


2015-01-01 01:10:25 PM
LOG ON
TEXT 01
Onions 3.59
CHIP 2.37
Apple 2.69
Goat 0.79
Cheese 0.69
Onions 1.58
Peppers red, loose 0.59
2 x 0.79 1.18
OK
TOTAL 3.63
CAM 05 TEXT 01

PTZ CONTROL

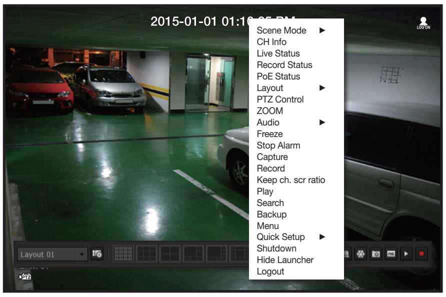
With this NVR, you can configure the settings of a PTZ camera as well as commercial cameras in the market to your preference.

PTZ device

This is active only if a channel that a PTZ camera is connected to is selected.

Getting started with PTZ operations

The PTZ camera will be activated only if the channel of the PTZ camera is selected, which can be performed in the following way:


2015-01-01 01:10:25 PM
Scene Mode ▶
CH Info
Live Status
Record Status
PoE Status
Layout ▶
PTZ Control
ZOOM
Audio ▶
Freeze
Stop Alarm
Capture
Record
Keep ch. scr ratio
Play
Search
Backup
Menu
Quick Setup ▶
Shutdown
Hide Launcher
Logout
Layout 01

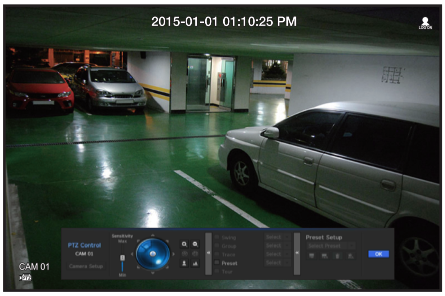
2015-01-01 01:10:25 PM
CAM 01

- Using the remote control : Press the [**PTZ**] button on your remote control.
- Using the launcher menu : Click < PTZ > from the launcher menu of the Live screen.
- Using the Live screen menu : Select <**PTZ Control**> in the context menu of the Live screen.
- Using the icons on the Live screen : Simply click the <PTZ> icon on the Live screen.

- This is available only if a PTZ camera is connected and the <PTZ> icon is displayed on the screen.
- Even if the connected network camera does not support the PTZ operations, you can configure the PTZ control settings (if possible) by installing the PTZ driver (physical device).
- It only supports a network camera with Samsung Techwin's PTZ function and a camera registered in the ONVIF.

Using the PTZ camera

You can use a single PTZ camera to perform the Pan, Tilt and Zoom operations to monitor multiple places, and configure the custom settings of the presets in a desired mode.



1. Open the <**PTZ Control**> menu.
   The <PTZ> icon in the left bottom of the screen will turn yellow, indicating that the system accesses "**PTZ Control**" mode. You will see the "**PTZ Control**" launcher menu.

   - The PTZ working (active) mark can be active even if the PTZ operation is not available in normal mode. So ensure that you have completed the PTZ settings before proceeding.

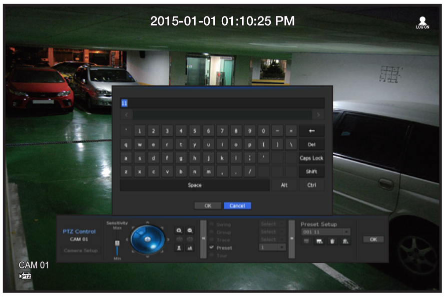
2. Adjust the camera recording location by using the PTZ ball in the launcher menu or press the left/right (▲▼◄►) button on your remote control to move the camera recording location.

- Sensitivity : Adjust sensitivity for Pan, Tilt controls.
- PTZ Wheel : Click a near area from the center to move the camera lens slowly; clicking a far area will move it fast.
  - If clicking and holding the mouse in the left will turn the camera counterclockwise; if clicking and holding the mouse in the right will move the camera lens clockwise.
- Zoom : Activate the Zoom operation of the PTZ camera.
- Iris : Adjust the amount of light incoming to the camera.
- Focus : You can adjust the focus manually.
- Swing : Swing is a monitoring function that moves between two preset points and enables you to trace the motion.
- Group : The group function enables you to group various presets before calling them in sequence.
- Trace : Tracking remembers the trace of movements that you instructed and reproduces it for your reference.
- Tour : Monitor all the groups created by a user in turn.
  - Some cameras may differ in the menu title and operation with regard to Swing, Group, Tour and Trace.

- Even if the network camera supports the PTZ operations by default, the PTZ control can be enabled only if the applicable menu is active in the launcher menu.

Preset

Preset is a specific position remembered by the PTZ camera. You can use the Preset function to define up to 255 presets for a single PTZ camera.


2015-01-01 01:10:25 PM
Space
OK
Cancel
PTZ Control
CAM 01
Preset
Preset Setup
OK
CAM 01

To add a preset

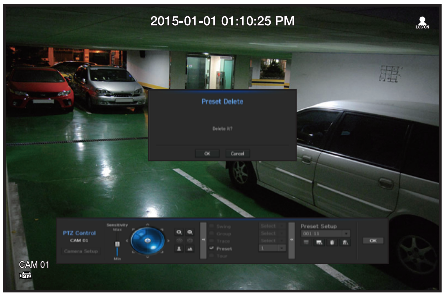
1. Check the preset checkbox.
2. Select < 🖫 >.
   The virtual keyboard will appear on the screen. Use it to provide the preset name.
   - Refer to "**Using Virtual Keyboard**". (Page 61)

- 🖫 : You can change the preset settings to your preference.
- 🗑 : Delete a selected preset.
- ALL : Delete all the existing preset settings.

> - You can add up to 255 presets, which is the max count supported by the NVR.
> - If you replace a camera that saves your preset settings with a different one, you must configure the preset settings again.

3. Select <**OK**>.
   The preset setting will be saved in the provided name.

If you want to change or delete the preset name


2015-01-01 01:10:25 PM
Preset Delete
Delete it?
OK
Cancel
PTZ Control
CAM 01
Preset
Preset Setup
OK
CAM 01

1. Check the preset checkbox and select a preset to change or delete.
2. If you selected < 🖫 >, enter the desired name and press OK.
   If you selected < 🗑 >, press OK to delete it.

- ALL : Delete all the existing preset settings.

> - If you delete the entire presets, the default presets specified in the network camera can be deleted accordingly.

menu setup

You can setup the system, devices, and options for recording, event and network.

SYSTEM SETUP

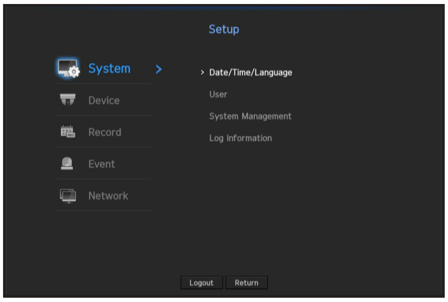
You can setup Date/Time/Language, User, System Properties and Log.

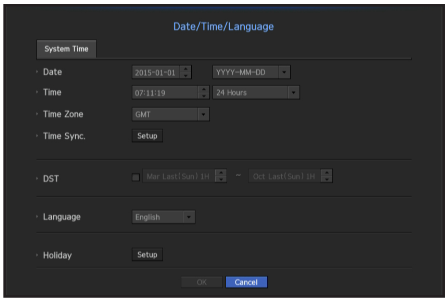
Date/Time/Language

Setting the Date/Time/Language

You can check and setup the current Date/Time and time related properties, as well as the language used for the interface on the screen.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ <System> ➪ ► ➪ <Date/Time/Language> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]

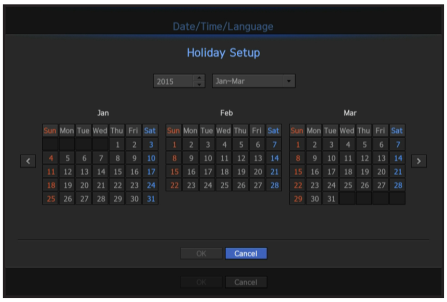


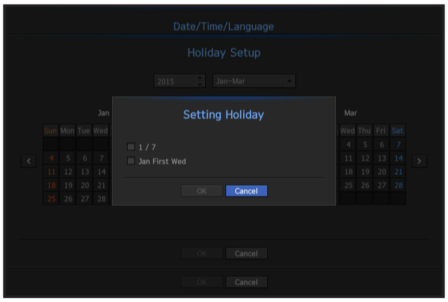


Date 2015-01-01 YYYY-MM-DD
Time 07:11:19 24 Hours
Time Zone GMT
DST ☐ Mar Last(Sun) 1H ~ Oct Last(Sun) 1H
Language English

- Date : Sets the date and its format that will appear on the screen.
- Time : Sets the time and its format that will appear on the screen.
- Time Zone : Sets the time zone of your area based on the Greenwich Mean Time (GMT).
  - ■ GMT (Greenwich Mean Time) is standard World Time and the basis of world time zone.
- Time Sync. : Specify the use of synchronization with the time server.
  Click the <**Setup**> button to display time synchronization setup screen.
  If you select to use the <**Time Server**>, the current time will be synchronized on a regular basis by the server defined as <**Time Server**>.
  If this is the case, you cannot change the time setting manually.
  - Synchronization : Specify the use of synchronization with the time server.
  - Time Server : Enter an IP or URL address of the time server.
  - Last Sync Time : Displays the most recent synchronization time from the selected time server.
  - Activate as Server : Set to <**Use**> to allow the NVR to act as a Time Server for other NVRs.
- DST : Set up Daylight Saving Time with its period to make the time earlier than the GMT of its time zone by 1 hour during the set period.
- Language : Select your language. Sets the language for the interface.
  English, French, German, Spanish, Italian, Chinese, Russian, Korean, Polish, Japanese, Dutch, Portuguese, Turkish, Czech, Danish, Swedish, Thai, Romanian, Serbian, Croatian, Hungarian, Greek, Finnish, and Norwegian are supported.

- Holiday : A user can select specific dates as holidays according to their own preferences.
  Holidays are applied in the <**Recording Schedule**> or <**Alarm Schedule**> setting too.

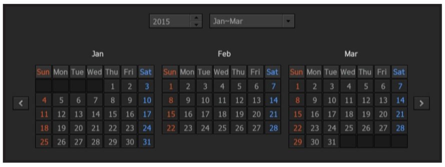

Date/Time/Language
Holiday Setup
2015
Jan~Mar
Jan
Feb
Mar
OK
Cancel


Date/Time/Language
Holiday Setup
Setting Holiday
☐ 1 / 7
☐ Jan First Wed
OK
Cancel

- e.g.) The day of January 7th is selected and <**1/7**> is checked only, January 7th is set to be a holiday every year. If both <**1/7**> and <**Jan First Wed**> are checked, both January 7th and the first Wednesday of January are set to be holidays every year.

To use the calendar

Use the mouse to select items more easily.


2015
Jan~Mar
Jan
Feb
Mar

1. Select year and month.
   After selecting the < ❮ ❯ > keys in the screen on the left/right of the wheel, press the [**ENTER**] button to move back/forward in increments of three months.
2. Select a date by using the directional button and press the [**ENTER**] button.
   - A date is marked in gray if there exist data for search for system log, event log, time search and event search.

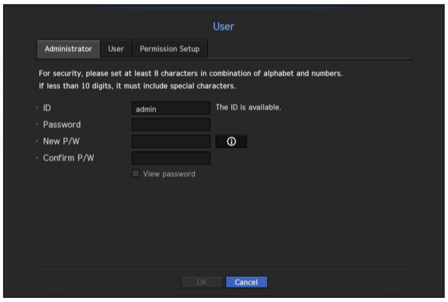
User

You can set permissions of each user over the NVR's specific function and settings.

Setting the Administrator

You can set and change Administrator's ID and password.
The administrator can use and set all menu items and functions.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <**Menu**> ➪ [ENTER] ➪ <**System**> ➪ ►▼ ➪ <**User**> ➪ [ENTER] ➪ ▼ ➪ <**Administrator**> ➪ ▲▼◄► ➪ [ENTER]



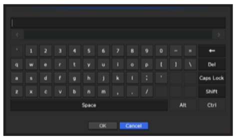
For security, please set at least 8 characters in combination of alphabet and numbers.
If less than 10 digits, it must include special characters.

ID: admin — The ID is available.
Password
New P/W
Confirm P/W
☐ View password

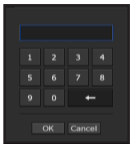
- ID : Change the admin ID.
- New P/W : Enter new password.

- The first administator ID is "**admin**" and the password must be set in the Installation Wizard.
- Please change your password every three months to safely protect personal information and to prevent the damage of the information theft.
  Please, take note that it's a user's responsibility for the security and any other problems caused by mismanaging a password.
- If you click < ⓘ >, a basic guide for password setup is displayed.

Using Virtual Keyboard



1. For alphanumeric inputs, the virtual keyboard window appears.
2. Using the directional key(▲▼◄►), move to the desired text tab and press the [**ENTER**] button.
3. In the upper text input box of the virtual keyboard, there displays a list of candidate words containing the selected character.
4. Select a word from the list, or use the keyboard to enter the whole word.
   - If there are many of candidate words, use < ‹ › > buttons to move between them forward and backward.

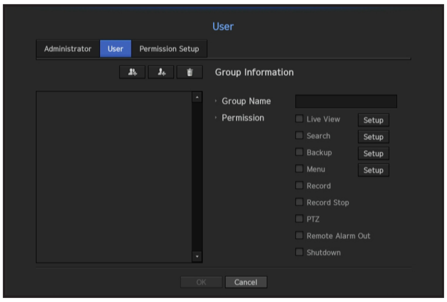


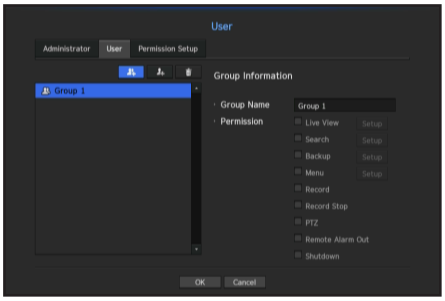
5. Select <**OK**>.
   Entered word is applied.
   - For upper case letters, use <**Caps Lock**> button.
   - For special characters, use <**Shift**> button.
   - Using the virtual keyboard is the same to a normal keyboard use in your region.
   - ID allows alphanumeric characters only.

User setting

You can create a group or set permissions for each group.
You can add a user and edit the registered user information.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <**Menu**> ➪ [ENTER] ➪ ►▼ ➪ <**System**> ➪ <**User**> ➪ [ENTER] ➪ ▼► ➪ <**User**> ➪ ▲▼◄► ➪ [ENTER]


User
Administrator
User
Permission Setup
Group Information
Group Name
Permission
Live View
Search
Backup
Menu
Setup
Record
Record Stop
PTZ
Remote Alarm Out
Shutdown
OK
Cancel

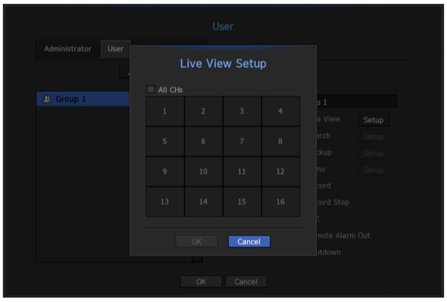

User
Administrator
User
Permission Setup
Group 1
Group Information
Group Name
Group 1
Permission
Live View
Search
Backup
Menu
Setup
Record
Record Stop
PTZ
Remote Alarm Out
Shutdown
OK
Cancel

If you want to add a group

1. Click on the [👥] button to launch the Group Addition popup window.
   If you want to add a group, click on <**OK**>.
2. Press the group name item to launch the virtual keyboard used to enter group names.
   Enter the group name to register.
   - You can add a maximum of 10 groups.

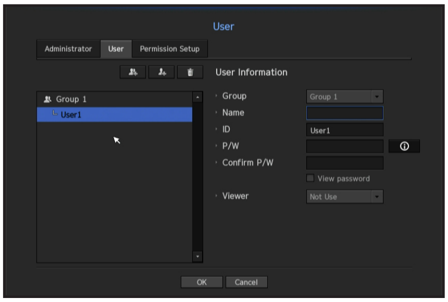
If you want to set group permission

Set permission to access each group.
Each group's users can only access items with a check mark beside them.


User
Administrator
User
Group 1
Live View Setup
All CHs
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
OK
Cancel
Setup
OK
Cancel

1. Select the menu to set group permissions.
   The menu with access permissions will appear when a user of the group logs in.
   - Live View : You can set permissions to access the live screen for each channel.
   - Search : You can set permissions to access the search menu for each channel.
   - Backup : You can set permissions to access the backup menu for each channel.
   - Menu : You can select and set the setting menu that can be accessed. A group user can only access the menu selected. If you select the menu, the menu permission setting screen will be displayed.
   - Record, Record Stop, PTZ, Remote Alarm Out, Shutdown : You can select these functions to add to a group's permissions.
2. Click <**OK**>.
   Check a group user to give them the permission to access the selected item.

If you want to register a user



Group: Group 1
Name:
ID: User1
P/W:
Confirm P/W:
☐ View password
Viewer: Not Use

1. Click on the [ ] button to launch the user addition popup window.
   To add a user, click on <**OK**>.
2. Select a group.
   When registering a user, the selected group will be automatically registered.
   - ■ A group can be changed after inputting all required information.
3. Enter name, ID, password and select whether to use the viewer.
   If you activate use of <**Viewer**>, you will have the right to use the web viewer and the network viewer.
4. Click <**OK**>.
   Registered user information will be saved.

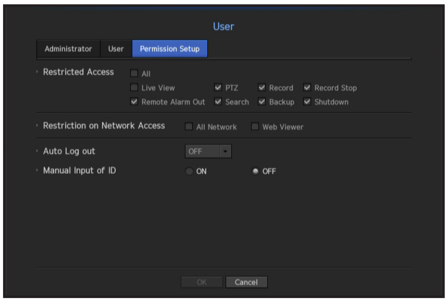
When you want to delete the group and user information

1. To delete, click on the [ ] button.
2. The deletion confirmation window will appear and you can select an item to delete and click on <**Delete**>.

Setting Permissions

You can set restricted access for all general users.
Items with restrictions will require logging in for use.

[**MENU**] ⇨ [**ENTER**] ⇨ ▼ ⇨ <**Menu**> ⇨ [**ENTER**] ⇨ <**System**> ⇨ ►▼ ⇨ <**User**> ⇨ [**ENTER**] ⇨ ▼► ⇨ <**Permission Setup**> ⇨ [**ENTER**] ⇨ ▲▼◄► ⇨ [**ENTER**]



Restricted Access: ☐ All
☐ Live View ☑ PTZ ☑ Record ☑ Record Stop
☑ Remote Alarm Out ☑ Search ☑ Backup ☑ Shutdown
Restriction on Network Access: ☐ All Network ☐ Web Viewer
Auto Log out: OFF
Manual Input of ID: ○ ON ● OFF

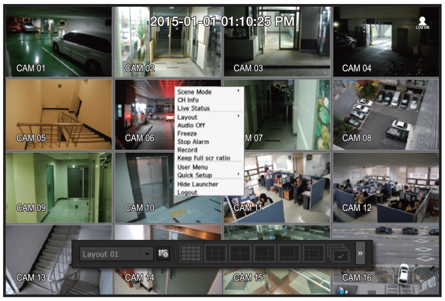
- Restricted Access : All menu items allowed for a user can be set with restricted access.
  - Checked (☑) : Restricted
  - Not checked (☐) : Accessible
  - ■ If it is not checked (☐) in <**Restricted Access**>, any user can access the item no matter what the <**Permission**> setting.
  - ■ If it is checked (☑) in <**Restricted Access**>, a user can access the item only if the user has permission in <**Permission**> setting.

- Restriction on Network Access : Restricts remote access from a <**Restricted Access**> network.
  - All Network : Restricts all access instances via Network Viewer and Web Viewer.
  - Web Viewer : Restricts access via the Web Viewer, Smart Viewer.
- Auto Log out : A user will be automatically logged out if there is no operation on NVR for over set period of time.
- Manual Input of ID : In the login window, select whether to enter ID.

If the user has restricted access

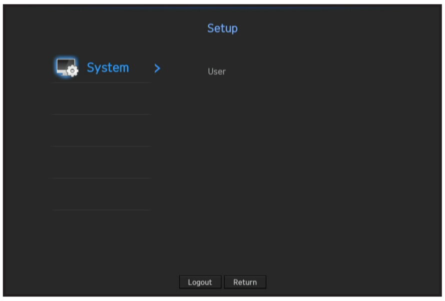
If a new group is restricted to access the entire menus, the users belonging to the group can access only the basic menus and can change only their respective password.

If all permissions are restricted, you will see only some menu items accessible in the Live screen menu.


2015-01-01 01:10:25 PM
LOG ON
CAM 01
CAM 02
CAM 03
CAM 04
CAM 05
CAM 06
M 07
CAM 08
CAM 09
CAM 10
CAM 11
CAM 12
CAM 13
CAM 14
CAM 15
CAM 16
Scene Mode
CH Info
Live Status
Layout
Audio Off
Freeze
Stop Alarm
Record
Keep full scr ratio
User Menu
Quick Setup
Hide Launcher
Logout
Layout 01

To change the user password

If you log in with the user account of a group with restricted access, you just can change your own password.


Setup
System
User
Logout
Return

1. Provide the login information.
2. Select <**User Menu**>.
   The Permission Management screen appears.
3. Select <**User**>.
   The Password dialog shall appear.
4. Provide a new password.
5. Select <**OK**>.
   The old password will be changed to a new one.

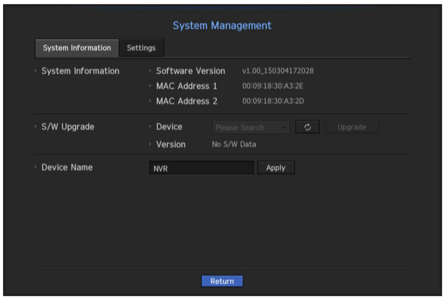
System Management

You can check the system version, update to a newer version, as well as data backup and initialization.

Checking the System Information

You can check the current software version and MAC address before proceeding with the upgrade.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ <System> ➪ ►▼ ➪ <System Management> ➪ [ENTER] ➪ ▼ ➪ <System Information> ➪ ▲▼◄► ➪ [ENTER]


System Management
System Information
Settings
Please Search
Upgrade
Apply
Return

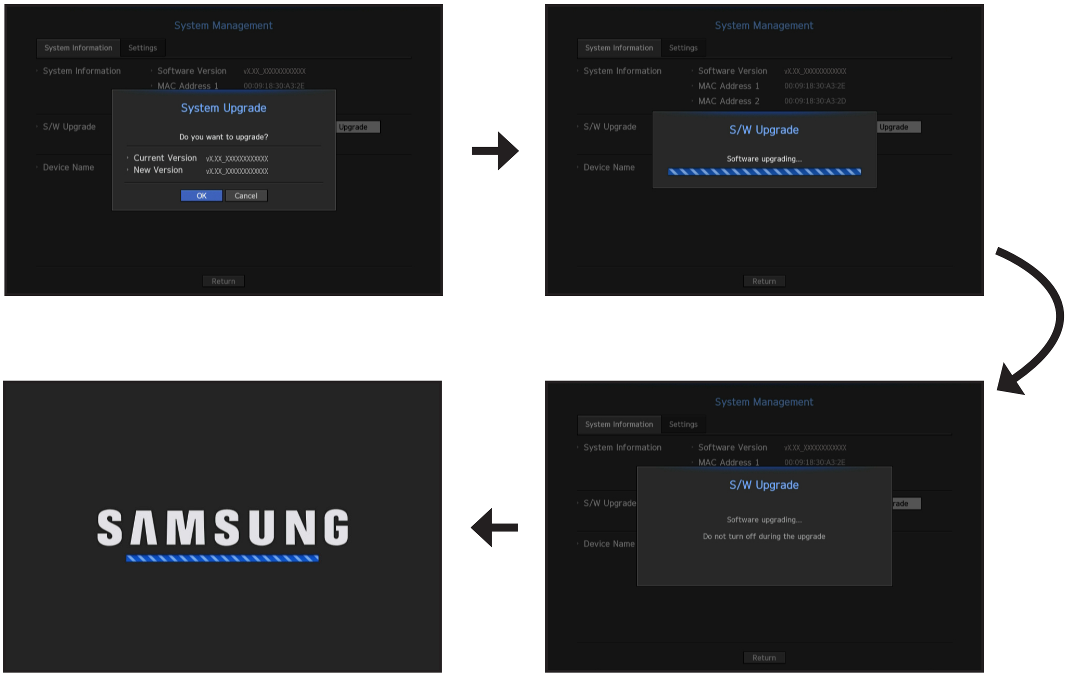
System Information
Software Version v1.00_150304172028
MAC Address 1 00:09:18:30:A3:2E
MAC Address 2 00:09:18:30:A3:2D

S/W Upgrade
Device
Version No S/W Data

Device Name NVR

- System Information : Shows the current system's information.
  The values can not be changed by a user.
- S/W Upgrade : Updates the NVR's software up to date.
- Device Name : Displayed if the network viewer is connected to NVR.

To upgrade the current software version


System Management
System Information
Settings
System Information
Software Version
MAC Address 1
MAC Address 2
S/W Upgrade
Upgrade
Device Name
Return
SAMSUNG

System Upgrade

Do you want to upgrade?

- Current Version vX.XX_XXXXXXXXXXX
- New Version vX.XX_XXXXXXXXXXX

OK Cancel

S/W Upgrade

Software upgrading...

S/W Upgrade

Software upgrading...

Do not turn off during the upgrade

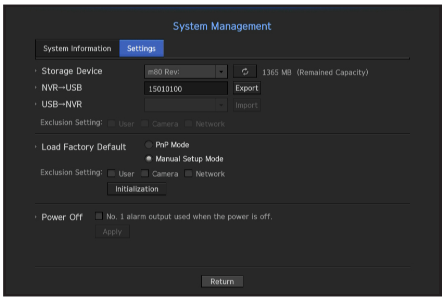
1. Connect a device storing the software to be updated.
   - It may take about 10 seconds to recognize the device.
   - Upgradeable devices include USB memory, and network device.
   - To update the network, the current NVR should have been connected to the network.
     Upgrade via the proxy server may not be enabled due to the restricted access.
2. Select <**System Management**> from <**System**> window.
3. Select <**System Information**>.
4. When the recognized device appears, select <**Upgrade**>.
   - If you connect a device in the upgrade menu window, you can press the < ⟳ > button to search for available software.
   - If there is an upgrade image on the network, the popup window will appear.
   - The <**Upgrade**> button will be activated only if the current <**Software Version**> of the <**System Information**> is same to or older than that of <**S/W Upgrade**>.
5. Press <**OK**> in the "**S/W Upgrade**" window.
   - While updating, it shows the progress.
6. When the updating is done, it automatically restarts.
   Do not turn the power off until it finishes restarting.

- If "**Upgrade Failed**" appears, retry from the step 4.
  When you experience continued failure, consult the service center for assistance.

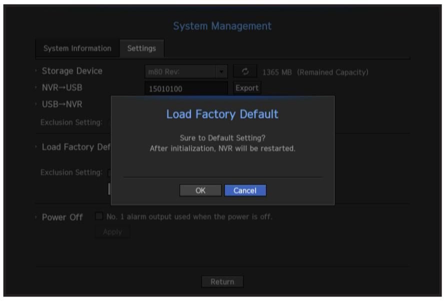
Settings

You can copy and import the NVR settings by using a storage media.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <**Menu**> ➪ [ENTER] ➪ <**System**> ➪ ►▼ ➪ <**System Management**> ➪ [ENTER] ➪ ▼► ➪ <**Settings**> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]



Storage Device: m80 Rev: 1365 MB (Remained Capacity)
NVR→USB: 15010100
USB→NVR
Exclusion Setting: ☐ User ☐ Camera ☐ Network
Load Factory Default: ○ PnP Mode ● Manual Setup Mode
Exclusion Setting: ☐ User ☐ Camera ☐ Network
Power Off: ☐ No. 1 alarm output used when the power is off.



Load Factory Default

Sure to Default Setting?
After initialization, NVR will be restarted.

- Storage Device : Shows the connected storage device.
- Export : Exports NVR settings to the connected storage device.
- Import : Imports NVR settings from the storage device and applies to the NVR.
  - Uncheck the checkbox of an item(s) that you want to import.
    Only the other items than the selected one will be applied to the NVR.
  - You cannot retrieve the configuration file from another mode. In other words, in PnP mode, you cannot retrieve the manual setting information. In manual setting mode, you cannot retrieve the PnP setting information.
- Load Factory Default : Restore the factory default settings of NVR.
  Uncheck the checkbox of an item(s) that you want to reset. Then, only the other items than the selected one will return to the factory default.
  If <**Initialization**> is selected, a confirmation dialog for "**Load Factory Default**" prompts. Press <**OK**> to initialize the system to the factory default.
  - ■ After changing the mode, reboot to initialize. (PnP mode <-> Manual Setup Mode)
- Power off : If the power is off, the first alarm is generated. After checking the checkbox, if the <**Apply**> button is pressed, all event alarms that are set to the first alarm output are released, and then the first alarm cannot be selected by other alarm output.
  - ■ If that function is set, the first alarm-out checkbox and all alarms in the alarm setup screen are deactivated, to Off.

■ If you want to initialize the <**Authority Setting**>, you need to reset the password.
In case you reboot, reset it the Installation Wizard and if not, use the guide screen to reset it.

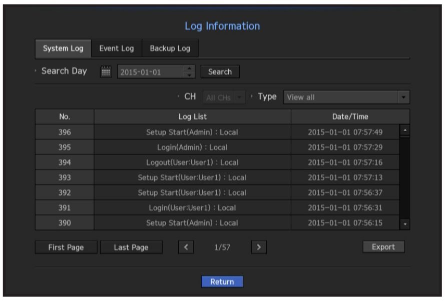
Log Information

You can browse logs on the system and events.

Checking the system log

System Log shows log and timestamp on every system start up, system shutdown, and changes on system settings.

[**MENU**] ➪ [**ENTER**] ➪ ▼ ➪ <**Menu**> ➪ [**ENTER**] ➪ <**System**> ➪ ►▼ ➪ <**Log Information**> ➪ [**ENTER**] ➪ ▼ ➪ <**System Log**> ➪ ▲▼◄► ➪ [**ENTER**]



Search Day 2015-01-01

CH All CHs

Type View all

No.	Log List	Date/Time
396	Setup Start(Admin) : Local	2015-01-01 07:57:49
395	Login(Admin) : Local	2015-01-01 07:57:29
394	Logout(User:User1) : Local	2015-01-01 07:57:16
393	Setup Start(User:User1) : Local	2015-01-01 07:57:13
392	Setup Start(User:User1) : Local	2015-01-01 07:56:37
391	Login(User:User1) : Local	2015-01-01 07:56:31
390	Setup Start(Admin) : Local	2015-01-01 07:56:15

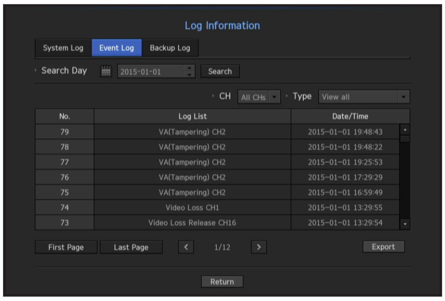
1/57

- Search Day : Click the Calendar icon to display the calendar window, or use the direction buttons to specify the search period of the system log.
  - ■ For using the calendar, refer to "**To use the calendar**". (Page 60)
- Search : Specify the date and press this button to display the search result in the log list.
- Type : When there are too many logs, you can display logs of the desired format by selecting the type.
- Export : Save all the logged information recorded in the NVR into the storage media.

Checking the event log

You can search recorded events including alarms, camera events and video loss.
It also shows the log and its timestamp.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <**Menu**> ➪ [ENTER] ➪ <**System**> ➪ ►▼ ➪ <**Log Information**> ➪ [ENTER] ➪ ▼► ➪ <**Event Log**> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]



Search Day 2015-01-01

CH All CHs
Type View all

No.	Log List	Date/Time
79	VA(Tampering) CH2	2015-01-01 19:48:43
78	VA(Tampering) CH2	2015-01-01 19:48:22
77	VA(Tampering) CH2	2015-01-01 19:25:53
76	VA(Tampering) CH2	2015-01-01 17:29:29
75	VA(Tampering) CH2	2015-01-01 16:59:49
74	Video Loss CH1	2015-01-01 13:29:55
73	Video Loss Release CH16	2015-01-01 13:29:54

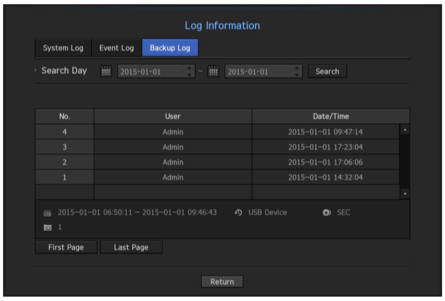
1/12

- Search Day : Click the Calendar icon to display the calendar window, or use the direction buttons to specify the search period of the system log.
  - ■ For using the calendar, refer to "**To use the calendar**". (Page 60)
- Search : Specify the date and press this button to display the search result in the log list.
- Type : When there are too many logs, you can display logs of the desired format by selecting the type.
- Export : Save all the logged information recorded in the NVR into the storage media.

Checking the backup log

You can find out who backed up and the details (backup time, channel, device to use, file format, etc.).

[MENU] ➪ [ENTER] ➪ ▼ ➪ <**Menu**> ➪ [ENTER] ➪ <**System**> ➪ ►▼ ➪ <**Log Information**> ➪ [ENTER] ➪ ▼► ➪ <**Backup Log**> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]



Search Day 2015-01-01 ~ 2015-01-01

No.	User	Date/Time
4	Admin	2015-01-01 09:47:14
3	Admin	2015-01-01 17:23:04
2	Admin	2015-01-01 17:06:06
1	Admin	2015-01-01 14:32:04

2015-01-01 06:50:11 ~ 2015-01-01 09:46:43 USB Device SEC
1

- Search Day : Click the Calendar icon to display the calendar window, or use the direction buttons to specify the search period of the system log.
  - ■ For using the calendar, refer to "**To use the calendar**". (Page 60)
- Search : Specify the date and press this button to display the search result in the log list.

SETTING THE DEVICE

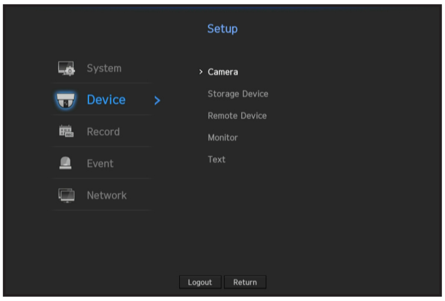
You can setup Camera, Storage Device and Monitor.

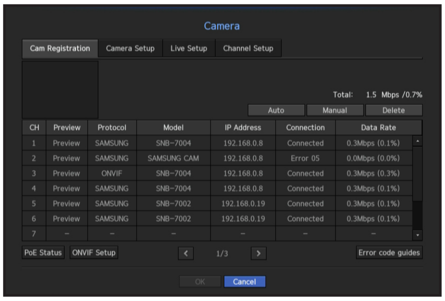
Camera

To register a camera

You can register a network camera for each channel and make connection between.

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <Menu> ⇨ [ENTER] ⇨ ▼ ⇨ <Device> ⇨ ► ⇨ <Camera> ⇨ [ENTER] ⇨ ▼ ⇨ <Cam Registration> ⇨ ▲▼◄► ⇨ [ENTER]


Setup
System
Device
Record
Event
Network
Camera
Storage Device
Remote Device
Monitor
Text
Logout
Return


Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
Auto
Manual
Delete
PoE Status
ONVIF Setup
1/3
Error code guides
OK
Cancel

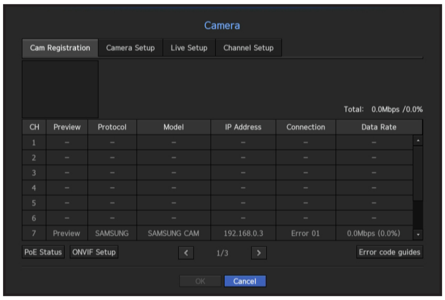
Total: 1.5 Mbps /0.7%

CH	Preview	Protocol	Model	IP Address	Connection	Data Rate
1	Preview	SAMSUNG	SNB-7004	192.168.0.8	Connected	0.3Mbps (0.1%)
2	Preview	SAMSUNG	SAMSUNG CAM	192.168.0.8	Error 05	0.0Mbps (0.0%)
3	Preview	ONVIF	SNB-7004	192.168.0.8	Connected	0.3Mbps (0.3%)
4	Preview	SAMSUNG	SNB-7004	192.168.0.8	Connected	0.3Mbps (0.1%)
5	Preview	SAMSUNG	SNB-7002	192.168.0.19	Connected	0.3Mbps (0.1%)
6	Preview	SAMSUNG	SNB-7002	192.168.0.19	Connected	0.3Mbps (0.1%)
7	–	–	–	–	–	–

- Preview : View the video of the channel as a current image.
- Protocol : Show the protocol information of a registered network camera.
- Model : Show the camera model name.
- IP Address : Display the IP address of a network camera.
- Connection : Display the connection status.
- Data Rate : Displays the total amount of data received by the channel.
- PoE Status : Displays connected PoE status information.
- ONVIF Setup : You can additionally set up ONVIF protocol camera.
- Error code guides : You can check the details of generated error codes.

- If the NVR has been initialized, it may not connect to cameras. Configure the network settings first and add cameras. For more information on network settings, refer to "**Network Configuration**". (Page 97)

If you want to register a camera in PnP mode

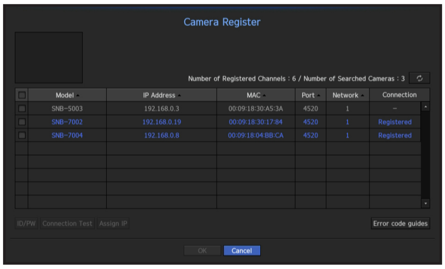

Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
PoE Status
ONVIF Setup
1/3
Error code guides
OK
Cancel

Total: 0.0Mbps /0.0%

CH	Preview	Protocol	Model	IP Address	Connection	Data Rate
1	–	–	–	–	–	–
2	–	–	–	–	–	–
3	–	–	–	–	–	–
4	–	–	–	–	–	–
5	–	–	–	–	–	–
6	–	–	–	–	–	–
7	Preview	SAMSUNG	SAMSUNG CAM	192.168.0.3	Error 01	0.0Mbps (0.0%)

- When you connect a camera in PnP mode, the initial ID, password and DHCP mode should be set in advance.
- Samsung cameras are registered for Samsung protocols and other cameras are registered by using the Onvif protocol.
- In PnP mode, you cannot connect a device that runs the DHCP server in PoE port or camera setting port. (Ex: hub)

To auto-search for and register a network camera


Camera Register
ID/PW
Connection Test
Assign IP
Error code guides
OK
Cancel

Number of Registered Channels : 6 / Number of Searched Cameras : 3

☐	Model	IP Address	MAC	Port	Network	Connection
☐	SNB-5003	192.168.0.3	00:09:18:30:A5:3A	4520	1	–
☐	SNB-7002	192.168.0.19	00:09:18:30:17:84	4520	1	Registered
☐	SNB-7004	192.168.0.8	00:09:18:04:BB:CA	4520	1	Registered

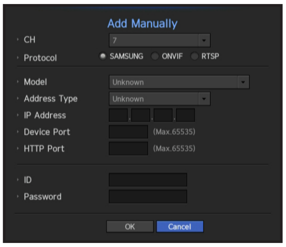
1. In the <**Cam Registration**> field, click on the <**Auto**> button.
2. Search for a network camera connected.
   - An already registered camera will be marked in blue in the list.
   - If you search for the camera again or if the IP is an old IP that was not assigned by the DHCP server (such as -192.168.1.100), then press the < ↻ > button to check if a new IP has been assigned. If the IP is still the same, then select Assign IP to assign the IP manually.
3. Select a camera from the camera list to see a preview of its current video feed.
   - Camera searched with ONVIF does not provide previews.

4. Check the checkbox next to a network camera that you want to connect to.
   - You can select all of the network cameras in the list and provide <**ID**> and <**Password**> all at once.
   - Click a header at the top of the list to sort the list according to that header.

- Registering camera with user account other than admin may restrict camera function.
- When you change the camera ID/password in the camera web viewer, if the camera is already registered in NVR, you also have to change the camera ID/passowrd information registered in NVR.

5. Click on the <**ID/PW**> button to enter the selected network camera's <**ID**> and <**Password**>.
6. Press the <**Connection Test**> button to make a connection to a camera.
7. Press <**OK**> to register the selected camera.

To manually search for and register a network camera



Add Manually

CH: 7

Protocol: ● SAMSUNG ○ ONVIF ○ RTSP

Model: Unknown

Address Type: Unknown

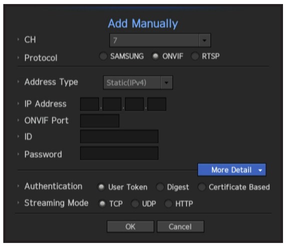
IP Address

Device Port (Max.65535)

HTTP Port (Max.65535)

ID

Password



Add Manually

CH: 7

Protocol: ○ SAMSUNG ● ONVIF ○ RTSP

Address Type: Static(IPv4)

IP Address

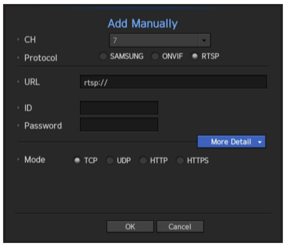
ONVIF Port

ID

Password

Authentication: ● User Token ○ Digest ○ Certificate Based

Streaming Mode: ● TCP ○ UDP ○ HTTP



Add Manually

CH: 7

Protocol: ○ SAMSUNG ○ ONVIF ● RTSP

URL: rtsp://

ID

Password

Mode: ● TCP ○ UDP ○ HTTP ○ HTTPS

1. In the <**Register**> menu, click on the <**Manual**> button.
2. The manual search window will appear.
3. Select a channel and protocol used to connect to a camera.
   The input items may differ depending on the selected protocol.

- SAMSUNG : Comply with the internal network protocols adopted by Samsung Techwin.
- ONVIF : Means the camera supports ONVIF protocols. When connecting a camera that its name cannot be found from the list, select <**ONVIF**>.
- RTSP : Comply with RFC 2326, one of "Real Time Streaming Protocol (RTSP)" for real-time streaming.

4. If you select the <**SAMSUNG**> protocol, check options as necessary.

- Model : Select a camera model.
  - Samsung Network Camera/Encoder : Means the camera/encoder supports Samsung Techwin's SVNP protocol. When connecting a camera that does not appear in the camera list, select Samsung Netowrk Camera/Encoder.
    - ■ However, you must select the correct model name of the camera, if it's in the list. Some of obsolete camera models may not be supported.
    - ■ The below models are discontinued. If you register them with ONVIF, some camera functions will be restricted or cause errors. It is recommended you register the Samsung protocol.
      - SNB-2000, SNB-3000, SNC-B2315, SNC-B2331, SNC-B2335, SNC-B5368, SNC-B5395, SNC-B5399, SNC-570, SNC-1300, SND-460V, SND-560, SND-3080, SND-3080C, SND-3080CF, SND-3080F, SND-3081, SNP-3301, SNP-3301H, SNP-3350, SNP-3370, SNP-3370TH, SNP-3750, SNV-3080, SNP-3430
- Address type : Select an address type of the camera.
  - ■ Address type can be different dependingon connected product model.
  - Static(IPv4)/Static(IPv6) : Used to provide the IP address of the camera manually.
  - iPOLiS DDNS : This is available only if the camera is registered with the iPOLiS DDNS(www.samsungipolis.com) server. Provide the registered domain for DDNS ID.
    - ■ Ex) http://www.samsungipolis.com/snb5000 ➞ provide "snb5000" for iPOLiS DDNS
  - URL : Used for URL address input.

■ Refer to the user manual of the connected camera and check the DDNS specification that is supported by the camera.

- IP Address : Provide the IP address of the camera.
- Device Port : Provide the device port of the camera.
- HTTP Port : Provide the HTTP port of the camera.
- ID : Provide the ID of the camera that you want to register.
- Password : Enter the password of the camera to be registered.

5. Select <**ONVIF**> or <**RTSP**> for the protocol and enter your input for each field appears.

- ONVIF Address / RTSP URL : Enter the camera's RTSP access address that supports ONVIF or RTSP.
  For more information about the RTSP address, refer to the manual of each applicable network camera.
- ID : Enter the ID for accessing via ONVIF/RTSP protocol.
- Password : Enter the password for accessing via ONVIF/RTSP protocol.
- Mode : If <**More Detail**> button clicked, setup window will appear. Select a mode that is supported by the network camera in RTSP connection mode.
  - TCP : The connection type with the network camera will switch to "RTP over TCP".
  - UDP : The connection type with the network camera will switch to "RTP over UDP".
  - HTTP : The connection type with the network camera will switch to "RTP over TCP (HTTP)".
  - HTTPS : The connection type with the network camera will switch to "RTP over TCP (HTTPS)".

If you want to check the error details of camera registration

If you failed to register a camera, the reason for the failure will be displayed.

- **Connection failed due to unknown error.** : This message appears if the camera has failed to be registered due to unknown connection status.
- **Due to the camera account locking, access has failed.** : When you enter a wrong ID/password 5 times to login to the camera account, this message is displayed.
  Try to log in again after 30 seconds. If the same message appears, you may need to check whether someone has tried to access your camera account from the outside.
- **Connected successfully.** : This message appears if the camera is connected successfully.
- **Incorrect model information. Provide the correct model information.** : This message appears if the model information provided for registering the camera is incorrect.
- **Authentication has failed** : This message appears if the ID or password provided for registering the camera is incorrect.
- **Connection has failed due to excessive concurrent users.** : This message appears if the concurrent user count exceeds the upper limit.
- **Connection has failed due to incorrect HTTP port information.** : This message appears if the HTTP port number of the camera is invalid.
- **Connection has failed. Unknown connection status.** : This message appears if the camera has failed to be connected due to a unknown error.
- **User Model Modification** : When registering a new camera, it is named according to the device's default if user set the model to <**Samsung Network Camera/Encoder**>. In case if automatic registration fails, user can change the model name of camera to be registered.

To edit camera profile

When a camera is added for the first time, it is added as the default profile of H.264, MJPEG in order temporarily.
To change its profile, refer to "**Setting the camera recording profile**" (Page 91) or "**Live Setting**" (Page 81).

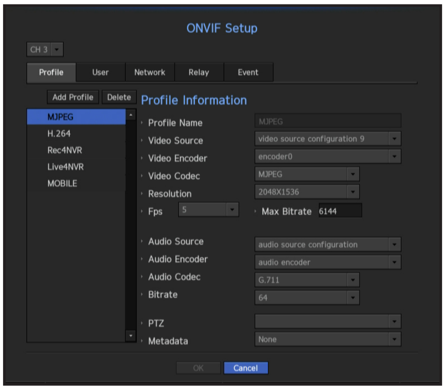
- In case of NVR, if you set 3 different profiles for live, recording and network profile, one camera will produce video streams accordingly, having different stream formats. Especially, note that the live profile may vary depending on the used screen split mode.
- For cameras, if applied with one profile only, the produced frame rate is fixed as the profile specifies; if applied with multiple profiles, produced video stream's frame rate is not guaranteed. For example, if applied with 2 profiles of 30fps, the camera may transmit streams at 20fps.

ONVIF Setup

In the bottom of the camera addition screen, click on the <**ONVIF Setup**> button to set additional settings for cameras with the ONVIF protocol.

■ You can change the information only if the user account (camera account used for camera registration) is used to read the user information and a connection is made with the admin privilege.

Profile



Profile Information

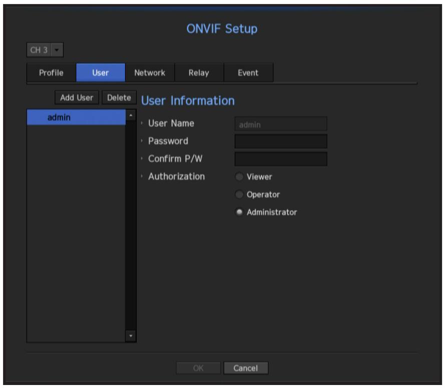
MJPEG
H.264
Rec4NVR
Live4NVR
MOBILE

Profile Name: MJPEG
Video Source: video source configuration 9
Video Encoder: encoder0
Video Codec: MJPEG
Resolution: 2048X1536
Fps: 5
Max Bitrate: 6144
Audio Source: audio source configuration
Audio Encoder: audio encoder
Audio Codec: G.711
Bitrate: 64
PTZ:
Metadata: None

- CH : It shows the list of registered camera with the ONVIF setting.
- Add Profile : You can add camera profile.
  After adding a profile, click on the <**OK**> button to add it to the list.
- Delete : After selecting the profile to delete, click on the <**Delete**> button to delete the selected profile.
- Profile information : You can set the details of the selected profile.

After finishing setting each item, click on the <**OK**> button to save changes.

User



User Information

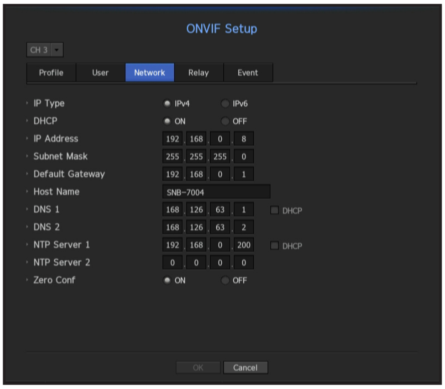
admin

User Name: admin
Password:
Confirm P/W:
Authorization: ○ Viewer ○ Operator ● Administrator

- Add User : You can add a camera user.
  After adding a user, click on the <**OK**> button to add them to the list.
- Delete : After selecting the user to delete, click on the <**Delete**> button to delete the selected user.
- User Information : You can set the details of the selected user.

Network

You can set the details of the network.

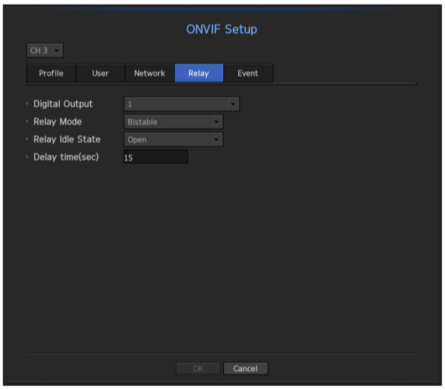

ONVIF Setup
CH 3
Profile
User
Network
Relay
Event
OK
Cancel

IP Type ● IPv4 ○ IPv6
DHCP ● ON ○ OFF
IP Address 192 . 168 . 0 . 8
Subnet Mask 255 . 255 . 255 . 0
Default Gateway 192 . 168 . 0 . 1
Host Name SNB-7004
DNS 1 168 . 126 . 63 . 1 ☐ DHCP
DNS 2 168 . 126 . 63 . 2
NTP Server 1 192 . 168 . 0 . 200 ☐ DHCP
NTP Server 2 0 . 0 . 0 . 0
Zero Conf ● ON ○ OFF

- IP Type : Select from either the IPv4/IPv6 IP types.
- DHCP : Select whether to use the DHCP.
- DNS / NTP Server : Only if the DHCP setting is <**ON**>, the DHCP checkbox will be activated.
  - ■ If the DHCP is checked, you can not manually enter the IP address.

Relay

You can set details of the relay.

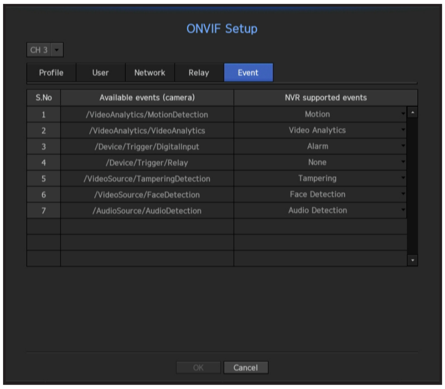

ONVIF Setup
CH 3
Profile
User
Network
Relay
Event
OK
Cancel

Digital Output 1
Relay Mode Bistable
Relay Idle State Open
Delay time(sec) 15

- Digital Output : You can select a digital output channel.
- Relay Mode : Select either bi or mono stable modes.
- Relay Idle State : Select either open or closed relay standby modes.
- Delay Time : Select the relay operation waiting time.

Event

You can set details of the event.



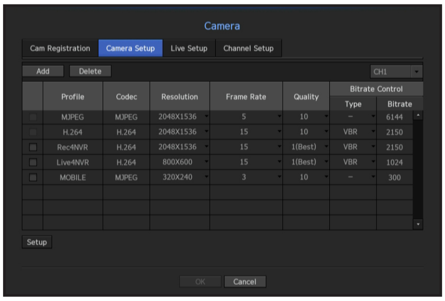
S.No	Available events (camera)	NVR supported events
1	/VideoAnalytics/MotionDetection	Motion
2	/VideoAnalytics/VideoAnalytics	Video Analytics
3	/Device/Trigger/DigitalInput	Alarm
4	/Device/Trigger/Relay	None
5	/VideoSource/TamperingDetection	Tampering
6	/VideoSource/FaceDetection	Face Detection
7	/AudioSource/AudioDetection	Audio Detection

- Available events (camera) : It shows the list of all the events supported by a camera by using the ONVIF protocol.
- NVR supported events : You can map the list of events supported by a camera to events that the NVR can detect. There is no default value. It only shows the value sent by a camera.

Camera Setting

You can change the video settings of a registered network camera for each channel.

[**MENU**] ➪ [**ENTER**] ➪ ▼ ➪ <**Menu**> ➪ [**ENTER**] ➪ ▼ ➪ <**Device**> ➪ ▶ ➪ <**Camera**> ➪ [**ENTER**] ➪ ▼▶ ➪ <**Camera Setup**> ➪ [**ENTER**] ➪ ▲▼◀▶ ➪ [**ENTER**]



	Profile	Codec	Resolution	Frame Rate	Quality	Bitrate Control	
						Type	Bitrate
☐	MJPEG	MJPEG	2048X1536	5	10	–	6144
☐	H.264	H.264	2048X1536	15	10	VBR	2150
☐	Rec4NVR	H.264	2048X1536	15	1(Best)	VBR	2150
☐	Live4NVR	H.264	800X600	15	1(Best)	VBR	1024
☐	MOBILE	MJPEG	320X240	3	10	–	300

- Add : You can add camera profile. Click on the Add button to launch the addition window. Enter the information and click on the <**OK**> button to add it to the list.
- Delete : You can delete the selected profile from the list.
- Select Camera : Select the camera channel to change the video transmission settings.
- Profile : Show a video profile for the connected camera.
- Codec : Show the codec information for the selected profile.
- Resolution : You can change the resolution of the selected profile.
- Frame Rate : You can change the frame rate of the selected profile.
- Quality : You can change the video quality of the selected profile.
- Bitrate Control : You can change the bit rate for video transmission of the selected profile.

- If you change the settings of a specific profile for each model, the effective range of the baud rate may be changed accordingly.
  Ex) if you set the frame rate of the first profile to 30fps, the send rate of the second profile will be changed to 15fps.
- Menu items except Codec, Resolution, Transfer Rate, and Transfer Quality can be configured in the network camera's settings menu.
- If you change the current profile settings, you may encounter an interrupted playback on the recording or live screen for a certain time.
- Changes made in Camera Setup page are applied immediately, while changes made through the camera's web page may require up to 3 minutes.

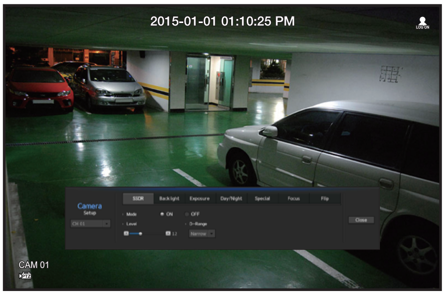
Setup

In the bottom of the camera setting screen, press the <**Setup**> button to set your camera while watching the live video of the selected camera.

- SUNAPI (Samsung Unified Network API) : Camera that supports the communication protocols provided by Samsung
  1. Camera supporting SUNAPI.
  2. A camera connected with admin privileges.
  3. A camera connected to Samsung protocols.
  In the above cases, you can use the function.
- For more details on camera settings, refer to the camera user manual.
  Settings and operational spec vary depending on each camera.

SSDR

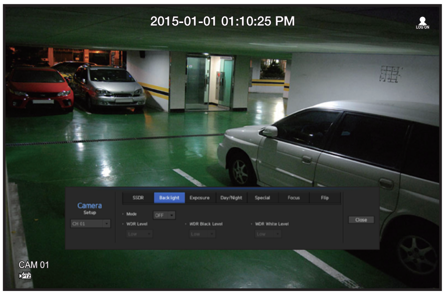
If there is a significant difference between the dark and the bright areas, increase the brightness of the dark areas to maintain the level of brightness of the entire area.
Mode, level, D-Range can be set.


2015-01-01 01:10:25 PM
LOG ON
Camera
Setup
CH 01
SSDR
Backlight
Exposure
Day/Night
Special
Focus
Flip
Close
CAM 01

Mode ● ON ○ OFF
Level 12
D-Range Narrow

Backlight

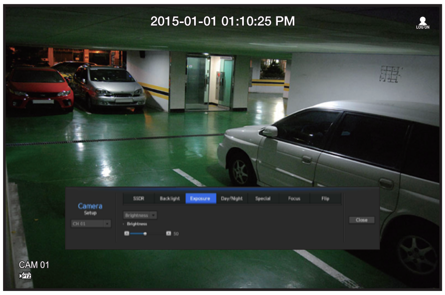
You can view both bright and dark areas.
Mode, WDR level, WDR black/white levels can be set.


2015-01-01 01:10:25 PM
LOG ON
Camera
Setup
CH 01
SSDR
Backlight
Exposure
Day/Night
Special
Focus
Flip
Close
CAM 01

Mode OFF
WDR Level Low
WDR Black Level Low
WDR White Level Low

Exposure

You can adjust the exposure of your camera.
Brightness control, shutter, SSNR, Sens-up, shutter/lens, and gains can be set.


2015-01-01 01:10:25 PM
LOG ON
Camera
Setup
SSDR
Backlight
Exposure
Day/Night
Special
Focus
Flip
Close
CAM 01

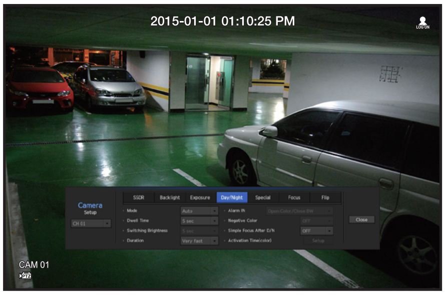
CH 01

Brightness

- Brightness 50

Day/Night

You can change the mode to adjust the color and contrast.
Mode, switching time, brightness change, alarm time, alarm input/output, negative color, daytime/nighttime switching and simple focus, and activation time can be set.

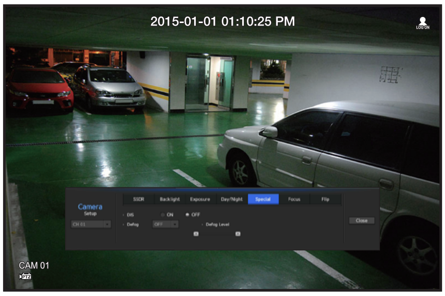

2015-01-01 01:10:25 PM
LOG ON
Camera
Setup
SSDR
Backlight
Exposure
Day/Night
Special
Focus
Flip
Setup
Close
CAM 01

CH 01

- Mode Auto
- Dwell Time 5 sec
- Switching Brightness 5 sec
- Duration Very fast
- Alarm IN Open:Color/Close:BW
- Negative Color OFF
- Simple Focus After D/N OFF
- Activation Time(color)

Special

DIS (shaking compensation), use of Defog levels can be set.

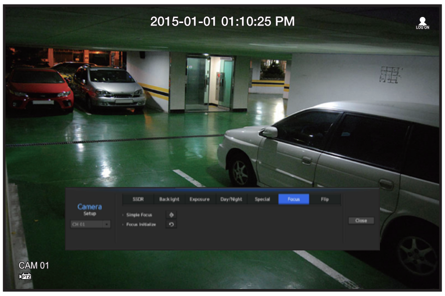

2015-01-01 01:10:25 PM
LOG ON
Camera
Setup
SSDR
Backlight
Exposure
Day/Night
Special
Focus
Flip
Close
CAM 01

CH 01

- DIS ○ ON ● OFF
- Defog OFF
- Defog Level

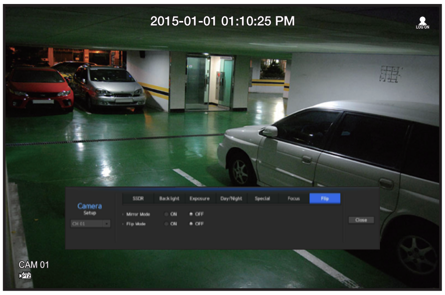
Focus

You can adjust the focus of you camera's video.
Items of Simple Focus and Focus-Initialize Setting can be set.


2015-01-01 01:10:25 PM
LOG ON
Camera
Setup
CH 01
SSDR
Backlight
Exposure
Day/Night
Special
Focus
Flip
Simple Focus
Focus Initialize
Close
CAM 01

Flip

You can set the mirror mode (horizontal flipping) and the flip mode (vertical flipping).


2015-01-01 01:10:25 PM
LOG ON
Camera
Setup
CH 01
SSDR
Backlight
Exposure
Day/Night
Special
Focus
Flip
Close
CAM 01

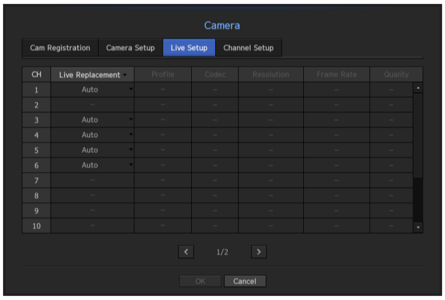
Mirror Mode ○ ON ● OFF
Flip Mode ○ ON ● OFF

After finishing with setting camera, click on the <**Close**> button to move back to the previous screen.

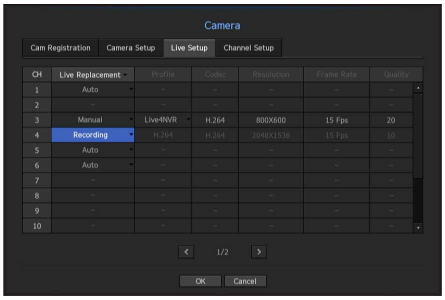
Live Setting

You can change the live transfer settings of the network camera.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Device> ➪ ► ➪ <Camera> ➪ [ENTER] ➪ ▼► ➪ <Live Setup> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]



CH	Live Replacement	Profile	Codec	Resolution	Frame Rate	Quality
1	Auto	–	–	–	–	–
2	–	–	–	–	–	–
3	Auto	–	–	–	–	–
4	Auto	–	–	–	–	–
5	Auto	–	–	–	–	–
6	Auto	–	–	–	–	–
7	–	–	–	–	–	–
8	–	–	–	–	–	–
9	–	–	–	–	–	–
10	–	–	–	–	–	–



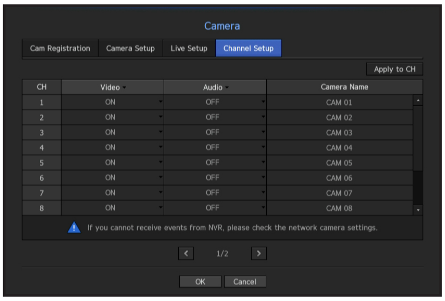
CH	Live Replacement	Profile	Codec	Resolution	Frame Rate	Quality
1	Auto	–	–	–	–	–
2	–	–	–	–	–	–
3	Manual	Live4NVR	H.264	800X600	15 Fps	20
4	Recording	H.264	H.264	2048X1536	15 Fps	10
5	Auto	–	–	–	–	–
6	Auto	–	–	–	–	–
7	–	–	–	–	–	–
8	–	–	–	–	–	–
9	–	–	–	–	–	–
10	–	–	–	–	–	–

- Live Replacement : You can select the live profile setup mode.
  If you select <**Manual**>, the profile setup items are enabled, and you can change settings manually.
  - Auto : For live monitoring, the profile which is approximate to the output resolution of each channel must be selected automatically.
    e.g., Camera profile : Three profiles (1280x720, 800x600 and 640x480) are supported.
    If the resolution of the output screen is 1920x1080:
    1280x720 is selected automatically if the channel resolution of the single channel is 1920x1080.
    640x480 is selected automatically if the channel resolution of 16-split channel is 480x270.
  - Manual : Live monitoring is performed with the profile selected by the user from the registered camera profiles.
  - Record : Live monitoring is performed with the profile set for recording.
- Profile : You can select the video profile of the connected camera setting.
- Codec : Show the codec of the selected recording profile.
- Resolution : Show the resolution of the selected profile.
- Frame Rate : Show the frame rate of the selected profile.
- Quality : Show the quality of transfer video of the selected profile.

Channel Setting

You can configure the video settings for each channel.

[**MENU**] ➪ [**ENTER**] ➪ ▼ ➪ <**Menu**> ➪ [**ENTER**] ➪ ▼ ➪ <**Device**> ➪ ► ➪ <**Camera**> ➪ [**ENTER**] ➪ ▼► ➪ <**Channel Setup**> ➪ [**ENTER**] ➪ ▲▼◄► ➪ [**ENTER**]



CH	Video	Audio	Camera Name
1	ON	OFF	CAM 01
2	ON	OFF	CAM 02
3	ON	OFF	CAM 03
4	ON	OFF	CAM 04
5	ON	OFF	CAM 05
6	ON	OFF	CAM 06
7	ON	OFF	CAM 07
8	ON	OFF	CAM 08

If you cannot receive events from NVR, please check the network camera settings.

- Apply to CH : If you select <**Apply to CH**>, the "**Apply to CH**" confirmation window will appear. After selecting channels that the settings will be applied to, click on <**OK**> to apply them to the selected channels.
- Video
  - <**ON/OFF**> : You can turn ON/OFF the selected channel's camera.
  - <**Covert1**> : Shows information other than the video of the selected channel. For privacy protection, it does not display the video while the recording continues.
  - <**Covert2**> : Shows nothing but an empty screen while the recording continues.

- If the channel is set to <**Covert1**> or <**Covert2**> mode, the channel's sound is not hearable. However, the channel's sound is recorded if its Audio setting is set to <**ON**>, even the sound is not heard in Live mode.

- Audio
  - If set to <**ON**>, you can turn the audio of the channel ON/OFF on the Live screen.
  - If set to <**OFF**>, the channel's audio is off on the Live screen and not recorded.
- Camera Name : Provide a camera Name.
  - You can enter up to 15 characters including space.

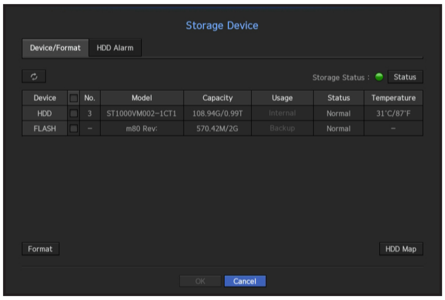
Storage Device

You can check information on storage devices.

Device/Format

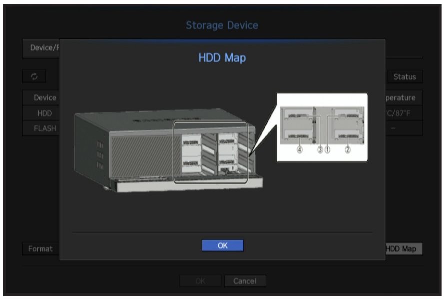
You can check storage devices and their capacity, usage as well as status.
Devices available are HDD, and USB devices (Memory, HDD).

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <Menu> ⇨ [ENTER] ⇨ ▼ ⇨ <Device> ⇨ ►▼ ⇨ <Storage Device> ⇨ [ENTER] ⇨ ▼ ⇨ <Device/Format> ⇨ ▲▼◄► ⇨ [ENTER]



Storage Status : ● Status

Device	☐	No.	Model	Capacity	Usage	Status	Temperature
HDD	☐	3	ST1000VM002-1CT1	108.94G/0.99T	Internal	Normal	31°C/87°F
FLASH	☐	–	m80 Rev:	570.42M/2G	Backup	Normal	–



- Storage Status : Displays the working status of a storage device.
  - Red : Displays the situation of video loss.
  - Green : Displays the normal situation without video recording losses.
  - Status
    - Full BPS : Displays the current rate of recording.
    - Current Loss Rate : Displays the current recording loss rate.
    - Max Loss Amount : Displays the maximum amount of losses up until now.
- No. : You can check the designated number for the built-in HDD.
  - If you want the find out about the location corresponding to the HDD number, refer to the <**HDD Map**>.
- Capacity : Displays the amount of storage device use and the full capacity.
- Usage : Designate the purpose of use for a storage device.
- Status : Displays the current working condition of a storage device.
  For inspection or replacement of HDD alarms, please refer to "**HDD Alarm Setting.**" (Page 84)
  - Normal : It is displayed during normal operation.
  - Inspection : Operating with partial problems.
  - Replacement : It is displayed when you can no longer use it.
- Temperature : You can check the temperature of the HDD mounted in the NVR.

- Format : Select a device and click on format after which a format confirmation window appears. Click on the <**OK**> button to format the selected storage device.

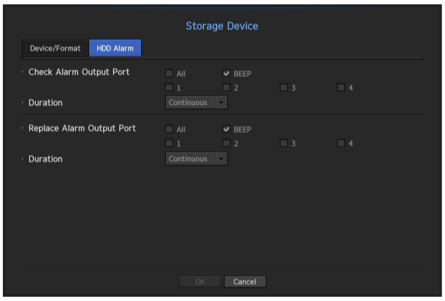
  - ■ Formatting will delete all the recording data that has been saved. Be careful.
  - ■ While formatting is ongoing, you cannot record video.
  - ■ Do not remove a formatting device until it is finished.

- HDD Map : You can check the location according to the assigned number for the HDDs installed inside.
  - ■ Refer to this when servicing or installing an additional HDD.

HDD Alarm Setting

You can set the inspection alarm output terminal, the replacement alarm output terminal and the alarm time for HDD defects.

[**MENU**] ⇨ [**ENTER**] ⇨ ▼ ⇨ <**Menu**> ⇨ [**ENTER**] ⇨ ▼ ⇨ <**Device**> ⇨ ►▼ ⇨ <**Storage Device**> ⇨ [**ENTER**] ⇨ ▼► ⇨ <**HDD Alarm**> ⇨ [**ENTER**] ⇨ ▲▼◄► ⇨ [**ENTER**]



Check Alarm Output Port: ☐ All ☑ BEEP ☐ 1 ☐ 2 ☐ 3 ☐ 4

Duration: Continuous

Replace Alarm Output Port: ☐ All ☑ BEEP ☐ 1 ☐ 2 ☐ 3 ☐ 4

Duration: Continuous

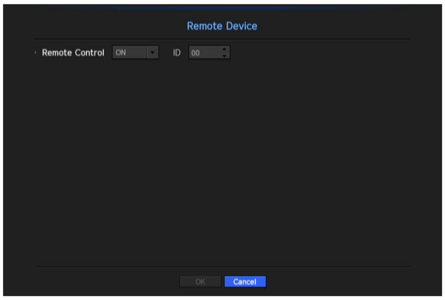
- Alarm
  - If <**All**> was selected, both beep sound and alarm signal through rear side ports will output.
  - If <**BEEP**> was selected, a beep will sound.
  - Alarm signal will output through the alarm out port on the rear side when selected <**1**>, <**2**>, <**3**> and <**4**>.
    - ■ SRN-473S only supports <**1**> alarm, and SRN-873S only supports <**1**>, <**2**>, and <**3**> alarms.
- Check Alarm Output Port : If HDD generates check alarm, the alarm signal will output to the specified alarm output port.
- Replace Alarm Output Port : If HDD generates replace alarm, the alarm signal will output to the specified alarm output port.
- Duration : Sets the alarm duration for the alarm signal and beep sound.

  - ■ <**Check**> status means that the HDD is operating but it has problems that require technical examination. ( ) appears on the Live screen.
  - ■ <**Replace**> status means that the HDD has defect and requires immediate replacement. ( ) appears on the Live screen.

Remote Devices

You can adjust the ID for a remote control to be used in connection with NVR.

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <Menu> ⇨ [ENTER] ⇨ ▼ ⇨ <Device> ⇨ ►▼ ⇨ <Remote Device> ⇨ [ENTER] ⇨ ▲▼◄► ⇨ [ENTER]


Remote Device

Remote Control: ON

ID: 00

- Remote control: Select whether to use a remote control.
- ID: Select an ID number linked to a camera.
  If the remote control ID does not match, it will not operate properly.

■ To change the remote control ID, refer to "**Changing the Remote Control ID**". (Page 16)

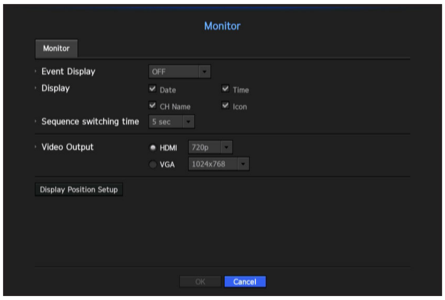
Monitor

You can set the information displayed on the monitor as well as the output system.

Monitor settings

You can configure the monitor output-related settings including the displayed information, dwell time and output system.

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <Menu> ⇨ [ENTER] ⇨ ▼ ⇨ <Device> ⇨ ►▼ ⇨ <Monitor> ⇨ ▲▼◄► ⇨ [ENTER]


Monitor

Event Display: OFF

Display: ☑ Date ☑ Time ☑ CH Name ☑ Icon

Sequence switching time: 5 sec

Video Output: ● HDMI 720p ○ VGA 1024x768

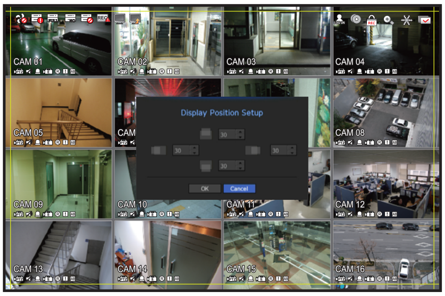
- Event Display : Sets the dwell time of the event channel display on the monitor when an event occurs.
  If you set it to <**Continuous**>, it will continue to display, until you press the [**ALARM**] button to cancel it.
- Display : Displays only checked items on the monitor screen.
- Sequence switching time : Set the automatic switching time for the segmented screen in live mode.

- Video Output : Select a video output type from <**HDMI**> and <**VGA**>.
  If your selection of <**HDMI**> or <**VGA**> does not match with the monitor setting, the video may not be output. If you press the [**STOP** (■)] ➞ [**ZOOM**] ➞ [**STOP** (■)] ➞ [**ZOOM**] ➞ [**MENU**] button on your remote control, the basic resolution pop up will appear. You can adjust the desired resolution in it.
  - If the changed resolution is not supported by the monitor, the video may not be displayed properly. If this is the case, the screen will restore the default resolution after a certain time. Then, you can change it to a different resolution.

- Specify the event display time and dwell time in consideration of the video delay depending on the network environment.

To adjust the display position

Some monitors many not display information (camera name, icon, time information, etc.) about the NVR, depending on the condition. Then, you can change the display position of the data.


CAM 01
CAM 02
CAM 03
CAM 04
CAM 05
CAM
CAM 08
CAM 09
CAM 10
CAM 11
CAM 12
CAM 13
CAM 14
CAM 15
CAM 16
Display Position Setup
30
30
30
30
OK
Cancel

1. From the monitor setup menu, select <**Display Position Setup**>.
2. Using the directional key or number button on the remote control, you can adjust the screen.
3. Press <**OK**>.

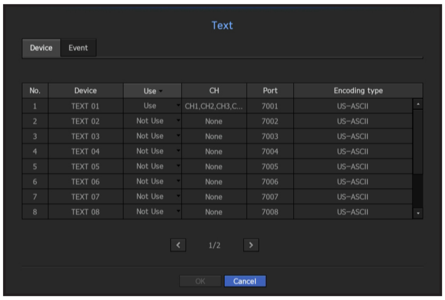
Text

Device and events can be set up.

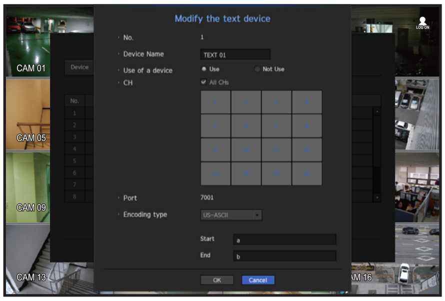
Device Settings

Relevant values of a device connected to NVR can be set.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Device> ➪ ►▼ ➪ <Text> ➪ [ENTER] ➪ ▼ ➪ <Device> ➪ ▲▼◄► ➪ [ENTER]



No.	Device	Use	CH	Port	Encoding type
1	TEXT 01	Use	CH1,CH2,CH3,C...	7001	US-ASCII
2	TEXT 02	Not Use	None	7002	US-ASCII
3	TEXT 03	Not Use	None	7003	US-ASCII
4	TEXT 04	Not Use	None	7004	US-ASCII
5	TEXT 05	Not Use	None	7005	US-ASCII
6	TEXT 06	Not Use	None	7006	US-ASCII
7	TEXT 07	Not Use	None	7007	US-ASCII
8	TEXT 08	Not Use	None	7008	US-ASCII



No. 1

Device Name: TEXT 01

Use of a device: ● Use ○ Not Use

CH: ☑ All CHs

Port: 7001

Encoding type: US-ASCII

Start: a

End: b

- Device : Enter the user's desired name
- Use : Select whether or not to use
- CH : Select a channel to add a device from a channel table.
- Port : Display a port number that is set
- Encoding type : Select an encoding type to use from a list.
  - You can select starting and ending character strings.

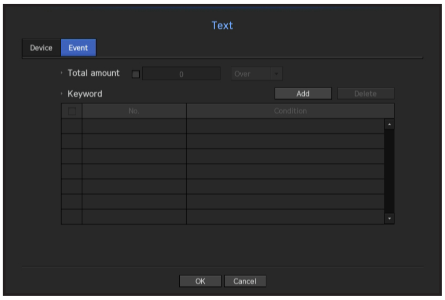
- General characters, special characters, and Hex codes (e.g. 0x12, 0x34) can be used for character strings.

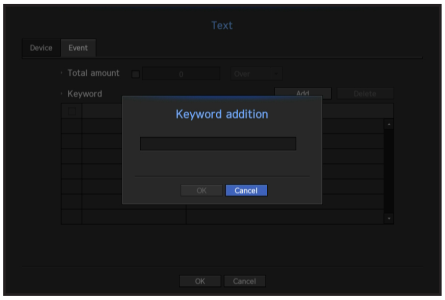
- Equipment connected to NVR uses TCP/IP communication protocol.

Event Settings

You can set up event keywords.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Device> ➪ ►▼ ➪ <Text> ➪ [ENTER] ➪ ▼ ►➪ <Event> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]


Text
Device
Event
Total amount
0
Over
Keyword
Add
Delete
No.
Condition
OK
Cancel


Text
Device
Event
Total amount
Keyword
Keyword addition
OK
Cancel
OK
Cancel

- Total amount : Set a total amount condition to receive alarms.
- Keyword : If the <**Add**> button is clicked, a screen to add keywords pops up. If you select one of the added keywords to delete and click the <**Delete**> button, the selected keyword will be deleted.

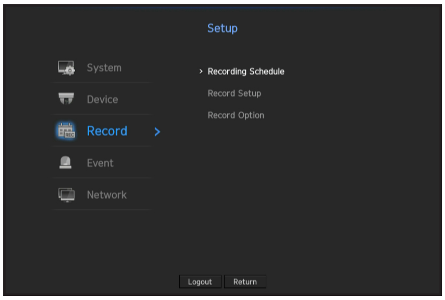
SETTING THE RECORDING

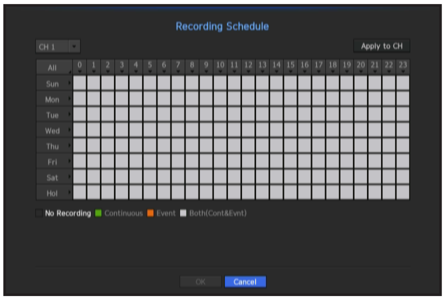
You can setup scheduled recording, event recording and other recording related settings.

Recording Schedule

Make your reservation on a date and time to schedule the recording on specified time.

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <**Menu**> ⇨ [ENTER] ⇨ ▼ ⇨ <**Record**> ⇨ ▶ ⇨ <**Recording Schedule**> ⇨ [ENTER] ⇨ ▲▼◀▶ ⇨ [ENTER]


Setup
System
Device
Record
Event
Network
Recording Schedule
Record Setup
Record Option
Logout
Return


Recording Schedule
CH 1
Apply to CH
All
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Sun
Mon
Tue
Wed
Thu
Fri
Sat
Hol
No Recording
Continuous
Event
Both(Cont&Evnt)
OK
Cancel

- All : The entire time range (Monday through Sunday including holidays, AM 0~ PM 23) will be reserved with the same recording schedule
- Apply to CH : If you select <**Apply to CH**>, the "**Apply to CH**" confirmation pop-up window will appear. After selecting channels that the settings will be applied to, click on <**OK**> to apply them to the selected channels.

Record setting by the color

Color	Function	Description
No Color	No Recording	No schedule / event recording
Green	Continuous	Scheduled recording only
Orange	Event	Event recording only
White	Both(Cont&Evnt)	Both scheduled / event recordings

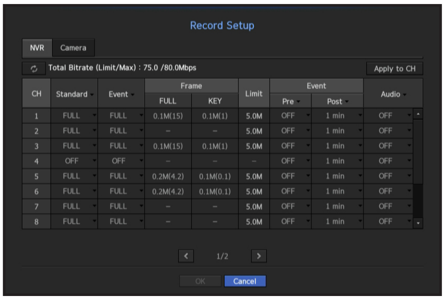
Each press of a selected cell will cycle through <**No Recording**>-<**Continuous**>-<**Event**>-<**Both(Cont&Evnt)**>.

Record Setting

You can set resolution, IPS, and quality of recordings by channel, and by recording type of standard / event.

You can check frame rates and data transfer amount of Full Frame and Key Frame recordings for each channel, and set the transfer limit for recordings.

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <Menu> ⇨ [ENTER] ⇨ ▼ ⇨ <Record> ⇨ ►▼ ⇨ <Record Setup> ⇨ [ENTER] ⇨ ▼ ⇨ <NVR> ⇨ ▲▼◄► ⇨ [ENTER]



Total Bitrate (Limit/Max) : 75.0 /80.0Mbps

CH	Standard	Event	Frame		Limit	Event		Audio
			FULL	KEY		Pre	Post	
1	FULL	FULL	0.1M(15)	0.1M(1)	5.0M	OFF	1 min	OFF
2	FULL	FULL	–	–	5.0M	OFF	1 min	OFF
3	FULL	FULL	0.1M(15)	0.1M(1)	5.0M	OFF	1 min	OFF
4	OFF	OFF	–	–	–	OFF	1 min	OFF
5	FULL	FULL	0.2M(4.2)	0.1M(0.1)	5.0M	OFF	1 min	OFF
6	FULL	FULL	0.2M(4.2)	0.1M(0.1)	5.0M	OFF	1 min	OFF
7	FULL	FULL	–	–	5.0M	OFF	1 min	OFF
8	FULL	FULL	–	–	5.0M	OFF	1 min	OFF

- Apply to CH : If you select <**Apply to CH**>, the "**Apply to CH**" confirmation window will appear.
  After selecting channels that the settings will be applied to, click on <**OK**> to apply them to the selected channels.
- Standard, Event : Configures Standard recording and Event recording.
  - FULL : Records all frames fed by the camera.
  - KEY : Records only key frames fed by the camera.
    Actual recording rate may differ from camera settings. In general, 1 to 2 frames per second are recorded.
  - OFF : No recording is made.
- Frame
  - FULL : Shows the data amount (frames) of 'Record all scenes'.
  - KEY : Shows the data amount (frames) of 'Record important scenes'.
- Limit : Set the amount of data allowed for input for each channel.
- Event : When an event occurs, you can set which point you will start or stop recording.
  - Pre : When an event occurs, recording will be started regardless of the time set.
    If you set it to five seconds, recording will start at five seconds before an event occurs.
  - Post : When an event occurs, recording will continue after the time set.
    If you set it to five seconds, recording will continue for a further five seconds after an event is finished.
- Audio : Specify whether to record the sound received from the camera or not.

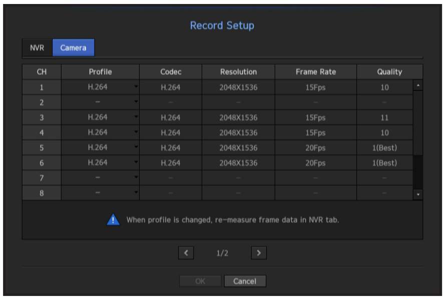
■ If a channel's data transfer exceeds defined allowed limit, then it may affect to other channels, and may force switching to <**KEY**> recording even when the channel is configured to <**FULL**> recording mode. For Key Frame recording channels, the icon for limited recording appears on the live screen's top side.

■ A channel displayed in yellow indicates that the recorded data is not being transferred from the camera and that the recording is being performed temporarily using another profile on the camera.
Check the channel information to see the applied profile to the channel listed in yellow.
A channel displayed in orange indicates that the amount of inputted data is greater than the permitted data amount.
In this case, it is impossible to record all of the incoming frames.
Instead, only part of the frames (1 or 2 frames per second) can be recorded. To resolve this issue, you must set the permitted data amount to be greater than the amount of inputted data.
Refer to notes on "**Record status**". (Page 48)

Setting the camera recording profile

You can set the video profile to perform recording on your camera connected to each channel.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Record> ➪ ►▼ ➪ <Record Setup> ➪ [ENTER] ➪ ▼► ➪ <Camera> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]



CH	Profile	Codec	Resolution	Frame Rate	Quality
1	H.264	H.264	2048X1536	15Fps	10
2	–	–	–	–	–
3	H.264	H.264	2048X1536	15Fps	11
4	H.264	H.264	2048X1536	15Fps	10
5	H.264	H.264	2048X1536	20Fps	1(Best)
6	H.264	H.264	2048X1536	20Fps	1(Best)
7	–	–	–	–	–
8	–	–	–	–	–

When profile is changed, re–measure frame data in NVR tab.

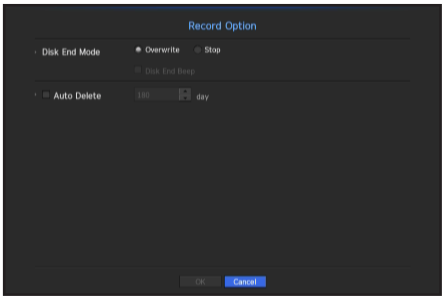
- You can configure the settings only for the profiles that are supported by the camera.
- If the profiles used for recording and network are different, camera's video feed may not comply with the frame rate as specified in the camera.

- Profile : Select a record profile for the connected camera.
- Codec : Show the codec information for the selected record profile.
- Resolution : Display the resolution for the selected record profile.
- Frame Rate : Display the frame rate for the selected record profile.
- Quality : Display the video quality for the selected record profile.

Record Option

When the HDD capacity is full, you can set whether to stop recording or start overwriting.

[**MENU**] ⇨ [**ENTER**] ⇨ ▼ ⇨ <**Menu**> ⇨ [**ENTER**] ⇨ ▼ ⇨ <**Record**> ⇨ ►▼ ⇨ <**Record Option**> ⇨ [**ENTER**] ⇨ ▲▼◄► ⇨ [**ENTER**]



Disk End Mode ● Overwrite ○ Stop

☐ Disk End Beep

☐ Auto Delete 180 day

- Disk End Mode : Select a HDD repetitive recording type.
  - Overwrite : If the HDD is full, this will overwrite the existing data and keep recording.
  - Stop : If the HDD is full, this will stop recording automatically.
- Disk End Beep : If you select <**Stop**> for the disk end mode, this button will be active. Specify the use of beep when the HDD recording ends.
  If you check it, the beep will sound on the disk full and the recording stops.
- Auto Delete : If you check this option, the period list box is active. Specify the deletion period to delete any earlier data than the specified date. However, you can search for data from the current time to the selected date.

■ If you press <**OK**> when you have completed your settings, all the existing data earlier than the specified period will be deleted automatically. So it is recommend to backup the previous data if necessary for later use.

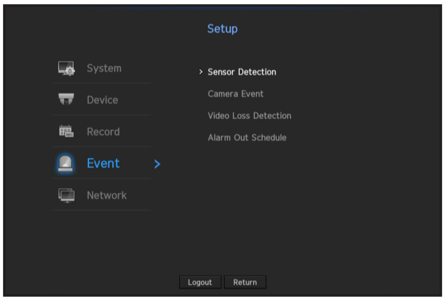
SETTING THE EVENT

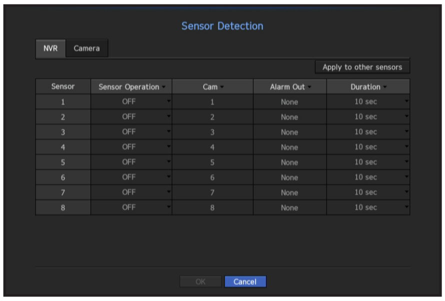
You can make the setup for record in case of sensor detection, camera event or video loss detection.

Sensor Detection

You can set the sensor's operating condition and connected camera, as well as alarm output and its duration.

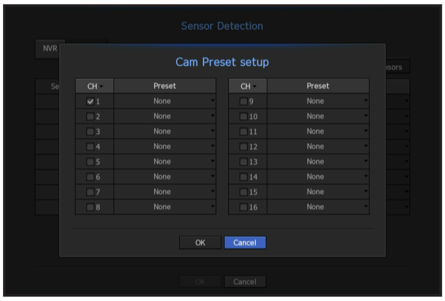
[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Event> ➪ ► ➪ <**Sensor Detection**> ➪ [ENTER] ➪ ▼ ➪ <NVR> ➪ ▲▼◄► ➪ [ENTER]


Setup
System
Device
Record
Event
Network
Sensor Detection
Camera Event
Video Loss Detection
Alarm Out Schedule
Logout
Return

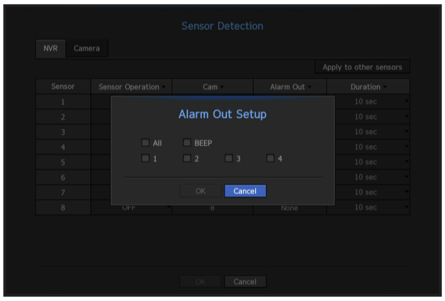

Sensor Detection
NVR
Camera
Apply to other sensors
OK
Cancel

Sensor	Sensor Operation	Cam	Alarm Out	Duration
1	OFF	1	None	10 sec
2	OFF	2	None	10 sec
3	OFF	3	None	10 sec
4	OFF	4	None	10 sec
5	OFF	5	None	10 sec
6	OFF	6	None	10 sec
7	OFF	7	None	10 sec
8	OFF	8	None	10 sec

- Apply to other sensors : If you select <**Apply to other sensors**>, the "**Apply to other sensors**" confirmation window will appear.
  After selecting channels that the settings will be applied to, click on <**OK**> to apply them to the selected channels.
- Sensor Operation : Sets the operation mode of sensors.
  - ■ In the <**Camera**> tab, you can set whether or not to use a sensor.
  - <**N.O (Normal Open)**> : Sensor is opened. If the sensor is closed, it generates alarm.
  - <**N.C (Normal Close)**> : Sensor is closed. If the sensor is open, it generates alarm.


Sensor Detection
NVR
Cam Preset setup
OK
Cancel

CH	Preset	CH	Preset
☑ 1	None	☐ 9	None
☐ 2	None	☐ 10	None
☐ 3	None	☐ 11	None
☐ 4	None	☐ 12	None
☐ 5	None	☐ 13	None
☐ 6	None	☐ 14	None
☐ 7	None	☐ 15	None
☐ 8	None	☐ 16	None


Sensor Detection
NVR
Camera
Apply to other sensors
Alarm Out Setup
☐ All
☐ BEEP
☐ 1
☐ 2
☐ 3
☐ 4
OK
Cancel

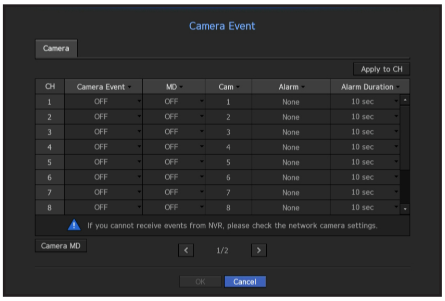
- Cam : Select a channel to be connected to the sensor.
  If selected camera, "**Cam Preset setup**" window appears.
  Select a channel and setup the preset.
  - ■ Preset setup can be done in PTZ mode.
- Alarm out : Sets the alarm output method.
  - ■ For further information on alarm output, refer to "**HDD Alarm** > **Alarm**". (Page 84)
  - ■ SRN-473S only supports <**1**> alarm, and SRN-873S only supports <**1**>, <**2**>, and <**3**> alarms.
- Duration : Sets the duration of alarm signal and alarm sound.

- ■ If you select <**Camera**> tab, you can configure the sensor operation settings of the network camera connected to each channel.
- ■ If the connected network camera that has configured the alarm in/out settings triggers an alarm, NVR will perform the alarm out.

Camera Event

You can specify operation of events sent from your camera (motion detection, video analysis events, audio events), alarm display methods, and alarm time.

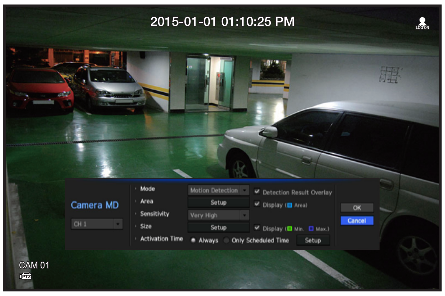
[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Event> ➪ ►▼ ➪ <Camera Event> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]



CH	Camera Event	MD	Cam	Alarm	Alarm Duration
1	OFF	OFF	1	None	10 sec
2	OFF	OFF	2	None	10 sec
3	OFF	OFF	3	None	10 sec
4	OFF	OFF	4	None	10 sec
5	OFF	OFF	5	None	10 sec
6	OFF	OFF	6	None	10 sec
7	OFF	OFF	7	None	10 sec
8	OFF	OFF	8	None	10 sec

If you cannot receive events from NVR, please check the network camera settings.

- Apply to CH : If you select <**Apply to CH**>, the "**Apply to CH**" confirmation window will appear.
  After selecting channels that the settings will be applied to, click on <**OK**> to apply them to the selected channels.
- Camera Event : Select whether or not to use a camera event.
- MD : Select whether or not to use motion detection from camera.
- Cam : Select an event detection channel.
  If you select a camera item, the "**Camera preset**" screen will appear. Select a channel to connect and set the preset.
  - ■ You can set the preset in PTZ mode.
- Alarm : Select the method for alarm output.
  - ■ For more details, refer to "**HDD alarm** > **Alarm**". (Page 84)
- Alarm Duration : Set the duration of alarm.
- Camera MD : You can set the detailed setting of motion detection for a network camera connected.



CH 1
Mode: Motion Detection
☑ Detection Result Overlay
Area: Setup
☑ Display (🟦 Area)
Sensitivity: Very High
Size: Setup
☑ Display (🟩 Min. 🟦 Max.)
Activation Time: ● Always ○ Only Scheduled Time Setup

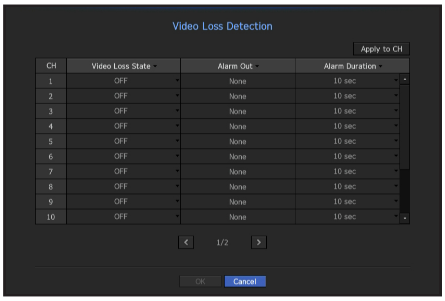
- Mode : Set the motion detection mode.
- Area : Click on <**Setup**> and when the detailed setup menu appears, set the motion detection area.
- Sensitivity : Set the sensitivity for motion detection. (very low/low//medium/high/very high).
- Size : Click on <**Setup**>. When the detailed setup menu appears, set the max/min size of the object to be detected.
- Activation Time : Select the operation time of motion detection.

After finishing with setup, click on the <**OK**> button to move back to the previous screen after saving the setup.

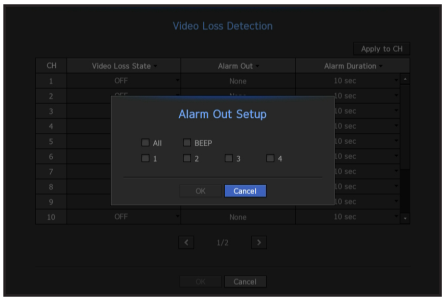
Video Loss Detection

You can set the camera so that the camera can trigger the alarm if it is disconnected or the video is lost due to unstable network connection.

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <Menu> ⇨ [ENTER] ⇨ ▼ ⇨ <Event> ⇨ ►▼ ⇨ <Video Loss Detection> ⇨ [ENTER] ⇨ ▲▼◄► ⇨ [ENTER]


Video Loss Detection
Apply to CH
1/2
OK
Cancel

CH	Video Loss State	Alarm Out	Alarm Duration
1	OFF	None	10 sec
2	OFF	None	10 sec
3	OFF	None	10 sec
4	OFF	None	10 sec
5	OFF	None	10 sec
6	OFF	None	10 sec
7	OFF	None	10 sec
8	OFF	None	10 sec
9	OFF	None	10 sec
10	OFF	None	10 sec

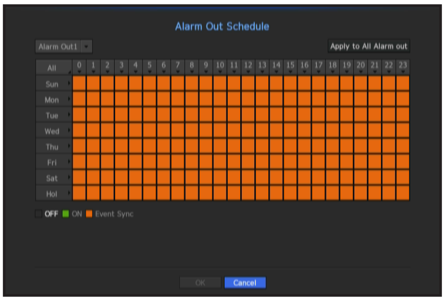

Video Loss Detection
Alarm Out Setup
☐ All
☐ BEEP
☐ 1
☐ 2
☐ 3
☐ 4
OK
Cancel

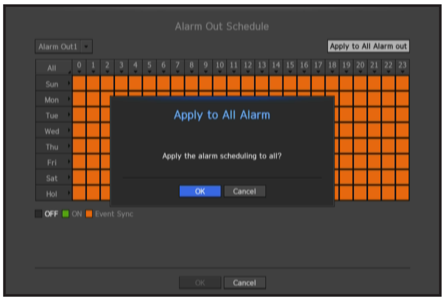
- Apply to CH : If you select <**Apply to CH**>, the "**Apply to CH**" confirmation window will appear. After selecting channels that the settings will be applied to, click on <**OK**> to apply them to the selected channels.
- Video Loss State : Specify the use of video loss detection.
- Alarm Out : Select an alarm output method.
  - For further information on alarm output, refer to "**HDD Alarm** > **Alarm**". (Page 84)
  - SRN-473S only supports <**1**> alarm, and SRN-873S only supports <**1**>, <**2**>, and <**3**> alarms.
- Alarm Duration : Specify the duration of the alarm output with the beep.

Alarm Out Schedule

You can set the conditions and operating hours for scheduled alarms.

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <Menu> ⇨ [ENTER] ⇨ ▼ ⇨ <Event> ⇨ ►▼ ⇨ <Alarm Out Schedule> ⇨ [ENTER] ⇨ ▲▼◄► ⇨ [ENTER]


Alarm Out Schedule
Alarm Out1
Apply to All Alarm out
All
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Sun
Mon
Tue
Wed
Thu
Fri
Sat
Hol
OFF ON Event Sync
OK
Cancel


Alarm Out Schedule
Alarm Out1
Apply to All Alarm out
All
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Sun
Mon
Tue
Wed
Thu
Fri
Sat
Hol
Apply to All Alarm
OK
Cancel
OFF ON Event Sync
OK
Cancel

Apply the alarm scheduling to all?

- Alarm Out : Sets the alarm output method.
  - For further information on alarm output, refer to "**HDD Alarm** > **Alarm**". (Page 84)
  - <**ON**> : Marked in green, and always generates alarm on scheduled time.
  - <**OFF**> : Marked in black, no alarm is generated even if an event occurs.
  - <**Event Sync**> : Marked in orange, generates alarm only when an event occurs.
- Apply to All Alarm out : Applies the configured schedule to all alarms.

■ When the alarm is generated on the scheduled time, you can stop the alarm by canceling the schedule.

NETWORK CONFIGURATION

It provides networked monitoring of Live screen from a remote place, and supports mail forwarding function with events. You can configure the network environment which enables such functions.

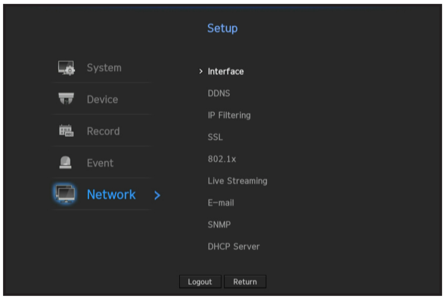
Interface

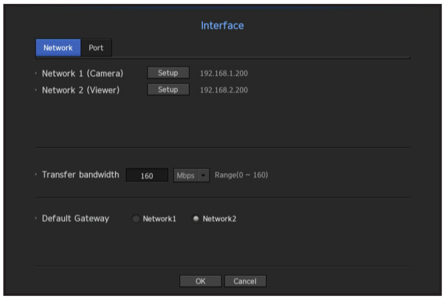
You can set the network connection route and protocol.

Setting a network connection

Sets the protocol and environment of the network.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Network> ➪ ► ➪ <Interface> ➪ [ENTER] ➪ ▼ ➪ <Network> ➪ ▲▼◄► ➪ [ENTER]


Setup
System
Device
Record
Event
Network
Interface
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SNMP
DHCP Server
Logout
Return


Interface
Network
Port
Setup
Setup
OK
Cancel

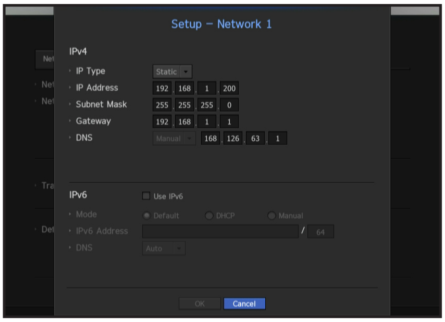
Network 1 (Camera) 192.168.1.200
Network 2 (Viewer) 192.168.2.200
Transfer bandwidth 160 Mbps Range(0 ~ 160)
Default Gateway ○ Network1 ● Network2

- Network1 (Camera) : Port for camera connections; it receives video from a camera.
- Network2 (Viewer) : Port used to send video to the web viewer.
- Network1 (Camera) / Network2 (Viewer) setup
  - IP Type : Select a network connection type.
  - IP Address, Subnet Mask, Gateway, DNS
    <**Static**> : You can manually enter IP address, subnet mask, gateway and DNS.
    <**DHCP**> : IP address, subnet mask and gateway values will be automatically set.
    <**PPPoE**> : IP address, subnet mask and gateway values will be automatically set.
  - User ID, Password : If you set the connection mode to PPPoE, you need to enter "**User ID**" and "**Password**" to register in PPPoE.
- Transfer bandwidth : Enter the maximum amount of upload data bandwidth.
  Check the assigned setting in Connection Mode before entering your value.
  - ■ If the sum of the network TX/RX is less than 160Mbps, there is a max transmission rate of 160Mbps.
- Default Gateway : Set the basic gateway by using Network1 / Network2 setup.

■ You can manually input DNS of <**DHCP**> and <**PPPoE**> when it selected to <**Manual**>.

Connecting and Setting the Network

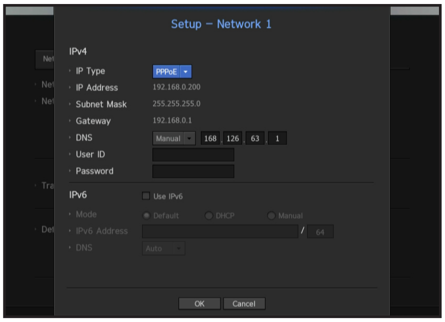
Networking may differ from the connection method, check your environment before setting the connection mode.



Setup – Network 1

IPv4
- IP Type: Static
- IP Address: 192 . 168 . 1 . 200
- Subnet Mask: 255 . 255 . 255 . 0
- Gateway: 192 . 168 . 1 . 1
- DNS: Manual 168 . 126 . 63 . 1

IPv6 ☐ Use IPv6
- Mode: ● Default ○ DHCP ○ Manual
- IPv6 Address: / 64
- DNS: Auto



Setup – Network 1

IPv4
- IP Type: PPPoE
- IP Address: 192.168.0.200
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.0.1
- DNS: Manual 168 . 126 . 63 . 1
- User ID
- Password

IPv6 ☐ Use IPv6
- Mode: ● Default ○ DHCP ○ Manual
- IPv6 Address: / 64
- DNS: Auto

When no router is used

- **Static IP mode**
  - Internet connection : Static IP, leased line, and LAN environments allows connection between the NVR and remote user.
  - NVR Network Settings : Set the <**Network**> in <**Interface**> menu of the connected NVR to <**Static**>.
  - ■ Consult your network manager for IP, Gateway and Subnet Mask.

- **DHCP mode**
  - Internet connection : Connect the NVR directly to a cable modem, DHCP ADSL modem or FTTH network.
  - NVR Network Settings : Set the <**Network**> in <**Interface**> menu of the connected NVR to <**DHCP**>.

- **PPPoE**
  - Internet connection : An PPPoE modem is directly connected to the NVR, where the PPPoE connection requires user ID and password.
  - NVR Network Settings : Set the <**Network**> in <**Interface**> menu of the connected NVR to <**PPPoE**>.
  - ■ PPPoE <**User ID**> and <**Password**> should be the same to the PPPoE user information.
    If you don't know the ID and password, consult your PPPoE service provider.

When a router is used

- To avoid IP address conflict with the NVR's static IP, check followings :

• Setting the NVR with a static IP

- Internet connection : You can connect the NVR to a router which is connected to an PPPoE/Cable modem or a router in a Local Area Network (LAN) environment.

• Setting the NVR Network

1. Set the <**Network**> in <**IP Type**> menu of the connected NVR to <**Static**>.
2. Check whether the set IP address is in the static IP range provided by the Broadband Router.
   IP Address, Gateway, and Subnet Mask : Consult your network manager.
   - Check whether the set IP address is in the static IP range provided by the Broadband Router.

- If a DHCP server is configured with starting address (192.168.0.100) and end address (192.168.0.200), you should set the IP address out of the configured DHCP range (192.168.0.2 ~ 192.168.0.99 and 192.168.0.201 ~ 192.168.0.254).

3. Check the Gateway address and subnet mask are equal to those set in the Broadband Router.

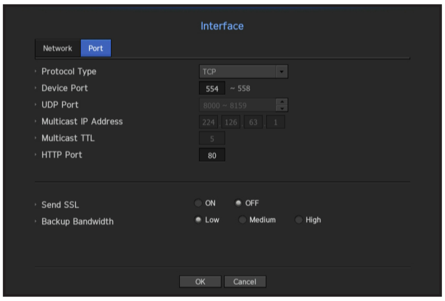
• Setting the DHCP IP Address of the Broadband Router

1. To access the Broadband Router's configurations, open a web browser on the local PC that is connected to the Broadband Router and enter the router's address (ex : http://192.168.1.1).
2. At this stage, make the local PC's windows network configurations to the below example :
   Ex) IP : 192.168.1.2
   Subnet Mask : 255.255.255.0
   Gateway : 192.168.1.1
   - Once connected to the Broadband Router, it prompts with password. While entering nothing to the User Name field, enter "**admin**" into the password field and press <**OK**> to access the router configurations.
   - Access the router's DHCP configuration menu and set its DHCP server activation, and provide the start and end address.
     Set the start address (192.168.0.100) and end address (192.168.0.200).

- Above steps may differ from the router devices depending on the manufacturer.

Port Setting

[**MENU**] ➪ [**ENTER**] ➪ ▼ ➪ <**Menu**> ➪ [**ENTER**] ➪ ▼ ➪ <**Network**> ➪ ▶ ➪ <**Interface**> ➪ [**ENTER**] ➪ ▼▶ ➪ <**Port**> ➪ [**ENTER**] ➪ ▲▼◀▶ ➪ [**ENTER**]



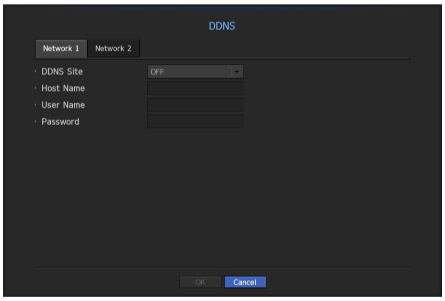
Protocol Type: TCP
Device Port: 554 ~ 558
UDP Port: 8000 ~ 8159
Multicast IP Address: 224 . 126 . 63 . 1
Multicast TTL: 5
HTTP Port: 80
Send SSL: ○ ON ● OFF
Backup Bandwidth: ● Low ○ Medium ○ High

- Protocol Type : Select the protocol type among TCP, UDP - Unicast and UDP - Multicast.
- Device Port : Enter the connectable port number. Initially, <**554**> is set.
  - TCP : It has better stability and lower speed when compared to UDP, and recommended for internet environments.
- UDP Port : Initially, <**8000~8159**> is set. It increases / decreases by 160.
  - UDP : It has less stability and faster speed when compared to TCP, and recommended for local area network (LAN) environments.
- Multicast IP Address : User can directly input.
- Multicast TTL : Select from 0 ~ 255. Initial value for the TTL is set to <**5**>.
- HTTP Port : Enter the port number for the Web Viewer. Initially, it is set to <**80**>.
- Send SSL : Select this option to send SSL.
- Backup Bandwidth : Select the degree of backup bandwidth.

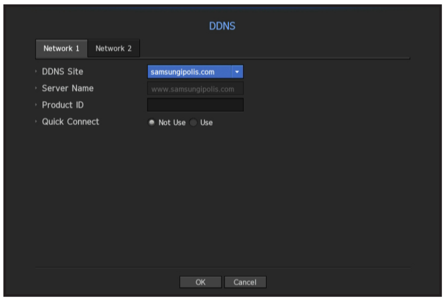
DDNS

If a remote user accesses the network, you can set whether or not to use DDNS and the site to be connected.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Network> ➪ ►▼ ➪ <DDNS> ➪ [ENTER] ➪ ▼ ➪ <Network 1> ➪ ▲▼◄► ➪ [ENTER]



DDNS Site: OFF
Host Name
User Name
Password



DDNS Site: samsungipolis.com
Server Name: www.samsungipolis.com
Product ID
Quick Connect: ● Not Use ○ Use

- DDNS Site : Specify the use of DDNS and select a site that you registered.
- Host Name : Provide the host name that you registered with the DDNS site.
- User Name : Provide the user ID that you registered with the DDNS Site.
- Password : Provide the password that you registered with the DDNS site.

- Refer to "**Using Virtual Keyboard**". (Page 61)
- If you select <**OFF**>, the input box will be inactive.
- If you select <**iPOLiS**>, the host name input box will be inactive. The user name input box will be active.

- Quick Connect : Appears if the <**samsungipolis.com**> is selected for a <**DDNS Site**>.
  To use the function, set to <**Use**> after connecting the NVR to a UPnP router.

- If canceled during Quick Connect configuration, it automatically switches to <**Not Use**> and saved.

To check Quick Connect status

A progress bar and its message appears for a Quick Connect.

- **Quick Connect Success** : Message for a successful connection.
- **Invalid Network Configuration** : Message appears if the network configuration is not valid. Check the configuration.
- **Please enable UPnP function of the router** : Message appears if the router requires UPnP function enabled.
- **Failed to find the router** : Message appears if the router is not found. Check the router's configurations.
- **Please restart the router** : Message appears if the router should be restarted.

DDNS Setting

DDNS is a short form of Dynamic Domain Naming System.
DNS (Domain Name System) is a service that routes a domain name consisting of user friendly characters (ex : www.google.com) to an IP address consisting of numbers (64.233.189.104).
DDNS (Dynamic DNS) is a service that registers a domain name and the floating IP address with the DDNS server so that the domain name can be routed to the IP address even if the IP is changed in a dynamic IP system.

- **Setting DDNS in the NVR**
  Set <**Protocol Type**> in the <**Protocol**> menu of the connected NVR to the following :
  Ex) Protocol Type : TCP
  Port (TCP) : 554, 555, 556, 557, 558
  DDNS Site : iPOLiS

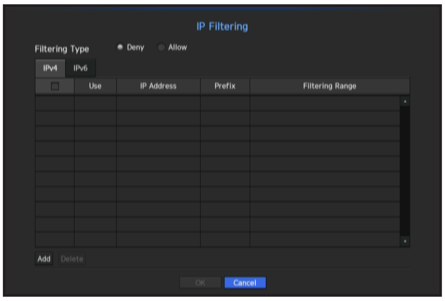
- **DDNS Settings of the Router**
  Select the corresponding menu for the network transfer protocol of the router.

- **Setting up UPnP of Router**
  Refer to the router's documentation to enable the UPnP function of the router.

IP Filtering

You can prepare the list of IP addresses to allow or block access to a specific IP address.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Network> ➪ ►▼ ➪ <IP Filtering> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]



Filtering Type ● Deny ○ Allow

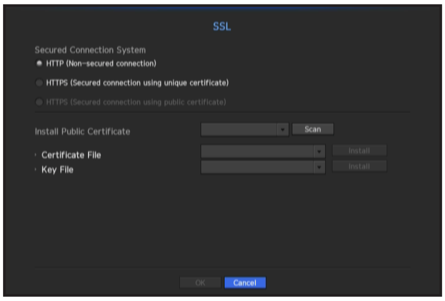
- Filtering Type :
  - Deny : If you select reject, access to the registered IP address will be limited.
  - Allow : If you choose permit, then they can only access the registered IP addresses.
- Use : Select the checkbox for the IP address that will use IP filtering.
- IP Address : Enter the IP address for filtering.
- Filtering Range : If you enter an IP address or prefix, then the range of IP addresses blocked or permitted will be displayed.

- If a camera's IP address is not included in the Permit list or is in the Reject list access to it will be rejected.
- Camera IP filtering through PoE port is not applied to IPv4. (The existing connection is maintained, and filtering is applied to subsequent connections.)

SSL

You can select a security connection system or install public certificates.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Network> ➪ ►▼ ➪ <SSL> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]


SSL
Secured Connection System
● HTTP (Non-secured connection)
○ HTTPS (Secured connection using unique certificate)
○ HTTPS (Secured connection using public certificate)
Install Public Certificate
Scan
Certificate File
Key File
Install
Install
OK
Cancel

- Secured Connection System : You can select a type of security connection system.
  - HTTP (Non-secured connection)
  - HTTPS (Secured connection using unique certificate)
  - HTTPS (Secured connection using public certificate)
- Install Public Certificate : You can scan and register public certificates to be installed.
  If you want to use a certificate, you need to install a certificate file along with and an encryption file.
  - ■ The <**HTTPS (Secured connection using public certificate)**> menu can be selected only if there is a registered public certificate.

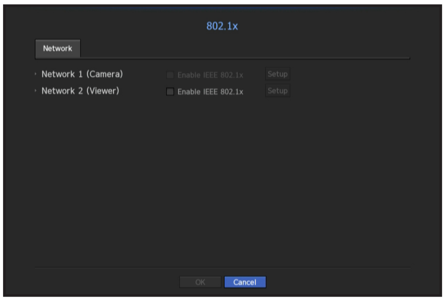
802.1x

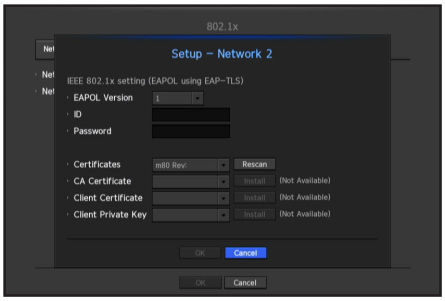
When connecting to a network, you can select whether to use the 802.1x protocol and install a corresponding certificate.

802.1x is a certificate system for the server and the client. It can guarantee robust performance against hacking into the Tx/Rx network data, virus or information leaks.

By using this system, you can block access from a client who is not certified and only allow communication to certified users and thus increase the level of security.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Network> ➪ ►▼ ➪ <802.1x> ➪ [ENTER] ➪ ▼ ➪ <Network> ➪ ▲▼◄► ➪ [ENTER]


802.1x
Network
Network 1 (Camera)
Network 2 (Viewer)
☐ Enable IEEE 802.1x
☐ Enable IEEE 802.1x
Setup
Setup
OK
Cancel


802.1x
Setup – Network 2
IEEE 802.1x setting (EAPOL using EAP-TLS)
EAPOL Version
1
ID
Password
Certificates
m80 Rev:
Rescan
CA Certificate
Client Certificate
Client Private Key
Install
Install
Install
(Not Available)
(Not Available)
(Not Available)
OK
Cancel
OK
Cancel

- EAPOL Version : Select the EAPOL version to be used as protocol.
  - ■ Some switch hubs will not operate if you set them to version <**2**>. Select version <**1**>.

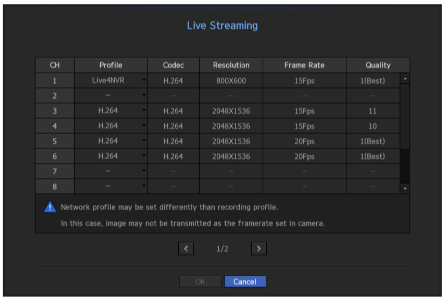
- ID : Enter the ID provided by the RADIUS server administrator.
  - If the entered ID does not match the ID of the client's certificate, it won't be processed properly.
- Password : Enter the password provided by the RADIUS server administrator.
  - If the password you entered does not match that of the client's private key, it won't be processed properly.
- Certificates : Search for a device. Click on <**Rescan**> to search for a device again.
- CA Certificate : Select this only if your public certificate includes the public key.
- Client Certificate : Select if the public certificate includes a client's authentication key.
- Client Private Key : Select it if the public certificate contains the client private key.

- For successful implementation of the 802.1x operating environment, the administrator must use the RADIUS server.
  In addition, the switch hub connected to the server must be a device that supports 802.1x.
- If the time setting of the RADIUS server, the switch hub and an NVR device do not match, communication between them can fail.
- If a password is assigned to the client's private key, the server administrator should confirm the ID and password.
  The ID and password allow up to 30 characters each. (But it only supports letters, numbers and special characters ("-", "_", "." 3 types) only.
  Accessing non password-protected files is allowed without entering a password.
- The 802.1x protocol adopted by the NVR is EAP-TLS.
- You need to install all three certificates to use 802.1x.

Live Streaming Setting

You can configure the profile to transfer the live video of each channel via the network.

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <Menu> ⇨ [ENTER] ⇨ ▼ ⇨ <Network> ⇨ ►▼ ⇨ <Live Streaming> ⇨ [ENTER] ⇨ ▲▼◄► ⇨ [ENTER]



CH	Profile	Codec	Resolution	Frame Rate	Quality
1	Live4NVR	H.264	800X600	15Fps	1(Best)
2	–	–	–	–	–
3	H.264	H.264	2048X1536	15Fps	11
4	H.264	H.264	2048X1536	15Fps	10
5	H.264	H.264	2048X1536	20Fps	1(Best)
6	H.264	H.264	2048X1536	20Fps	1(Best)
7	–	–	–	–	–
8	–	–	–	–	–

Network profile may be set differently than recording profile.
In this case, image may not be transmitted as the framerate set in camera.

- Profile : Select a network profile for the connected camera.
- Codec : Show the codec information for the selected network profile.
- Resolution : Display the resolution for the selected network profile.
- Frame Rate : Display the baud rate for the selected network profile.
- Quality : Display the video quality for the selected network profile.

- If the profiles used for network and recording are different, camera's video feed may not comply with the frame rate as specified in the camera.

E-mail

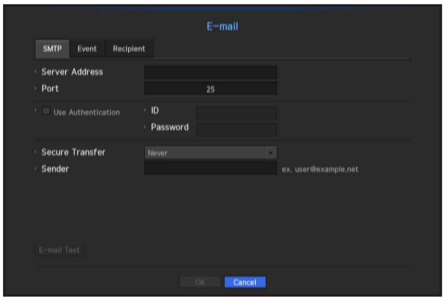
You can send an e-mail to a NVR-registered user at a specific time interval, or if an event occurs.

- If the camera is set to <**OFF**> or the channel's event is Video Loss, a notification is sent to the designated email address only in text.

SMTP Setting

Sets the SMTP mail server.

[**MENU**] ⇨ [**ENTER**] ⇨ ▼ ⇨ <**Menu**> ⇨ [**ENTER**] ⇨ ▼ ⇨ <**Network**> ⇨ ►▼ ⇨ <**E-mail**> ⇨ [**ENTER**] ⇨ ▼ ⇨ <**SMTP**> ⇨ ▲▼◄► ⇨ [**ENTER**]



E-mail

SMTP | Event | Recipient

Server Address

Port 25

☐ Use Authentication

ID

Password

Secure Transfer Never

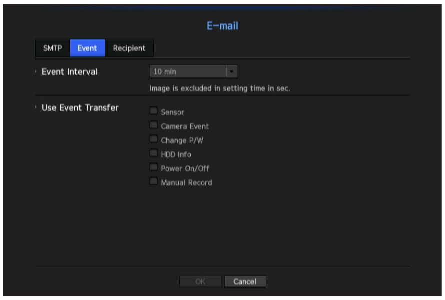
Sender ex. user@example.net

- Server Address : Enter the SMTP server address to connect to.
- Port : Sets the communication port.
- Use Authentication : Check this if the SMTP server uses user authentication.
  The account input box will be activated.
- ID : Enter a ID to use authentication when connecting to the SMTP server.
- Password : Enter the password of the SMTP server user.
- Secure Transfer : Select one from <**Never**> and <**TLS (if available)**>.
- Sender : Use the virtual keyboard to enter the sender's e-mail address.
  - Refer to "**Using Virtual Keyboard**". (Page 61)
- E-mail Test : Conducts the test on the server settings.

Event Setting

You can set the interval and type of the event that will be sent to the user.

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <Menu> ⇨ [ENTER] ⇨ ▼ ⇨ <Network> ⇨ ►▼ ⇨ <**E-mail**> ⇨ [ENTER] ⇨ ▼► ⇨ <**Event**> ⇨ [ENTER] ⇨ ▲▼◄► ⇨ [ENTER]

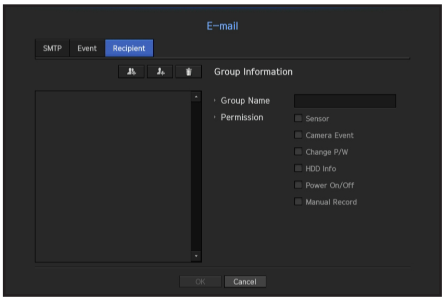

E-mail
SMTP
Event
Recipient
Event Interval
10 min
Image is excluded in setting time in sec.
Use Event Transfer
☐ Sensor
☐ Camera Event
☐ Change P/W
☐ HDD Info
☐ Power On/Off
☐ Manual Record
OK
Cancel

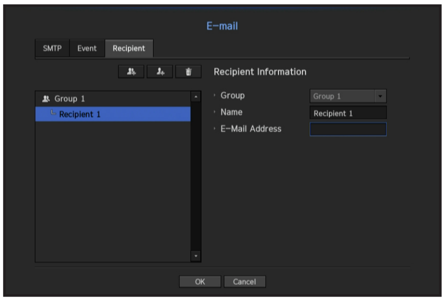
- Event Interval : Set the event interval.
  - ■ If a series of events occurs, the e-mail will be sent at the specified interval, not on each event.
- Use Event Transfer : Select an event type to send if an event occurs.
  If the selected event occurs, the e-mail will be sent to the group that has the recipient authority.

Recipient Setting

You can create a group and add users to it or; you can delete users and change a group.

[MENU] ⇨ [ENTER] ⇨ ▼ ⇨ <Menu> ⇨ [ENTER] ⇨ ▼ ⇨ <Network> ⇨ ►▼ ⇨ <**E-mail**> ⇨ [ENTER] ⇨ ▼► ⇨ <**Recipient**> ⇨ [ENTER] ⇨ ▲▼◄► ⇨ [ENTER]


E-mail
SMTP
Event
Recipient
Group Information
Group Name
Permission
☐ Sensor
☐ Camera Event
☐ Change P/W
☐ HDD Info
☐ Power On/Off
☐ Manual Record
OK
Cancel

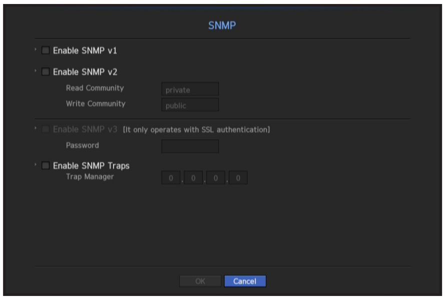

E-mail
SMTP
Event
Recipient
Recipient Information
Group 1
Recipient 1
Group
Group 1
Name
Recipient 1
E-Mail Address
OK
Cancel

- Click on < > to add a group.
  Select a group name and the privilege.
- Select a recipient group to receive emails.
  If a group is added, it will appear in the group list.
- Click on < > to add a recipient.
  Select a group and enter names and email addresses.
  If a group is created, you can add a recipient.
  - ■ For inputting the recipient name and email address, refer to "**Using Virtual Keyboard**". (Page 61)

SNMP

Using the SNMP protocol, the system or network administrator can monitor the network devices remotely as well as the operating environment.

[**MENU**] ➪ [**ENTER**] ➪ ▼ ➪ <**Menu**> ➪ [**ENTER**] ➪ ▼ ➪ <**Network**> ➪ ►▼ ➪ <**SNMP**> ➪ [**ENTER**] ➪ ▲▼◄► ➪ [**ENTER**]



☐ Enable SNMP v1

☐ Enable SNMP v2

Read Community: private

Write Community: public

☐ Enable SNMP v3 [It only operates with SSL authentication]

Password:

☐ Enable SNMP Traps

Trap Manager: 0 . 0 . 0 . 0

- Enable SNMP v1 : SNMP version 1 is used.
- Enable SNMP v2 : SNMP version 2 is used.
  - Read Community : Enter the name of read-only community to access the SNMP information. By default it is set to <**private**>.
  - Write Community : Enter the name of write-only community to access the SNMP information. By default, it is set to <**public**>.
- Enable SNMP v3 : SNMP version 3 is used.
  - Password : Set the initial user password for SNMP version 3.
- Enable SNMP Traps : SNMP trap is used to send important events and conditions to the Admin System.
  - Trap Manager : Enter the IP address to which messages will be sent.

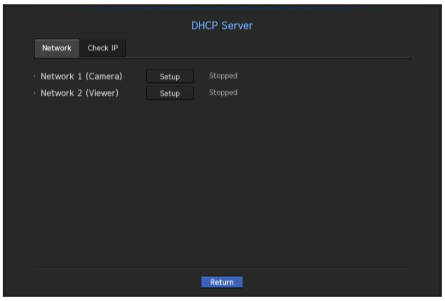
■ SNMP v3 can be set only if the security connection method is set to HTTPS mode.
Refer to "**SSL**" for more details. (Page 103)

DHCP Server

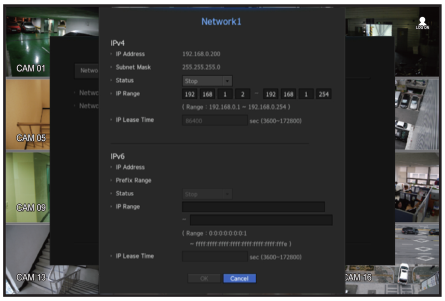
You can set the internal DHCP server and assign an IP address to the network camera.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Network> ➪ ►▼ ➪ <DHCP Server> ➪ [ENTER] ➪ ▼ ➪ <Network> ➪ ▲▼◄► ➪ [ENTER]

Network Setting


DHCP Server
Network
Check IP
Setup
Setup
Return

Network 1 (Camera) Stopped
Network 2 (Viewer) Stopped


CAM 01
CAM 05
CAM 09
CAM 13
CAM 16
Network1
IPv4
IPv6
OK
Cancel

IPv4
IP Address 192.168.0.200
Subnet Mask 255.255.255.0
Status Stop
IP Range 192 168 1 2 ~ 192 168 1 254
(Range : 192.168.0.1 ~ 192.168.0.254)
IP Lease Time 86400 sec (3600~172800)

IPv6
IP Address
Prefix Range
Status Stop
IP Range
~
(Range : 0:0:0:0:0:0:0:1
~ ffff:ffff:ffff:ffff:ffff:ffff:ffff:fffe)
IP Lease Time sec (3600~172800)

- Network 1 (Camera) / Network 2 (Viewer) : Select <**Setup**>, and you can set the IP range operated by the server and time.

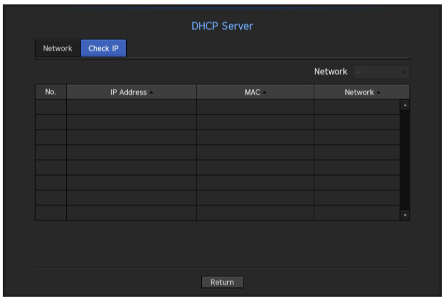
To set the DHCP server

1. On the DHCP Server Setup window, click <**Setup**>.
2. Select <**Run**> in the <**Status**> field.
3. Enter the starting IP and end IP in the <**IP Range**> field.
4. Fill in the <**IP Lease Time**> field.
5. Click <**OK**>.
   The IP range entered is set as the DHCP server address of the network.

Check IP

You can check the IP Address and Mac currently used through the DHCP server, and the connected network port.

[MENU] ➪ [ENTER] ➪ ▼ ➪ <Menu> ➪ [ENTER] ➪ ▼ ➪ <Network> ➪ ►▼ ➪ <DHCP Server> ➪ [ENTER] ➪ ▼► ➪ <Check IP> ➪ [ENTER] ➪ ▲▼◄► ➪ [ENTER]

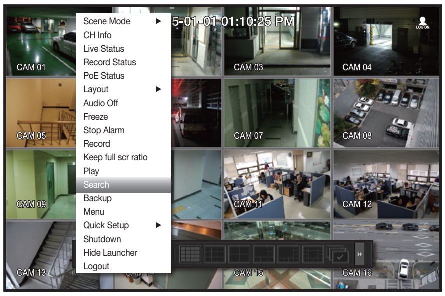

DHCP Server
Network
Check IP
Network
No.
IP Address
MAC
Network
Return

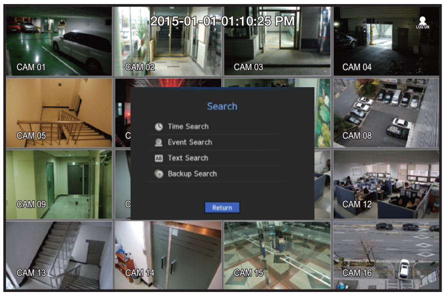
- Network : Select the network port to check the information on IP and others.

search & play

SEARCH

You can perform the search for recorded data by the time or by the search criteria such as an event.
You can access the <**Search**> menu directly in Live mode.


5-01-01 01:10:25 PM
Scene Mode
CH Info
Live Status
Record Status
PoE Status
Layout
Audio Off
Freeze
Stop Alarm
Record
Keep full scr ratio
Play
Search
Backup
Menu
Quick Setup
Shutdown
Hide Launcher
Logout
CAM 01
CAM 03
CAM 04
CAM 05
CAM 07
CAM 08
CAM 09
CAM 11
CAM 12
CAM 13
CAM 15
CAM 16

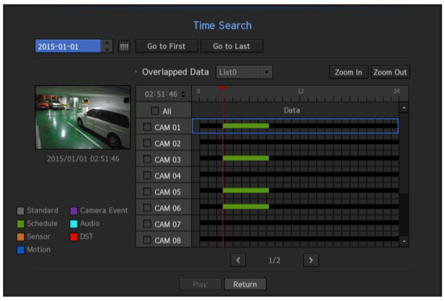

2015-01-01 01:10:25 PM
Search
Time Search
Event Search
Text Search
Backup Search
Return
CAM 01
CAM 02
CAM 03
CAM 04
CAM 05
CAM 08
CAM 09
CAM 12
CAM 13
CAM 14
CAM 15
CAM 16

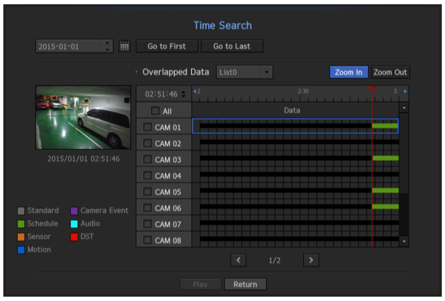
1. In live mode, right click with the mouse button or press the [**MENU**] button on your remote control.
   The Live menu appears.
2. Select <**Search**>.
   Or press the [**SEARCH**] button on your remote control
3. The Search menu should appear.
4. The search can be restricted by the Auto Delete function.
   Refer to "**Setting the Recording** > **Record Option**". (Page 92)

- Overlapped data : It only appears if there exists overlapped data on a certain time, produced due to the change of NVR's time setup. The latest data comes first, from <**List0**>.
  It does not appear in <**Backup Search**>.
- The search time is based on the time specified by NVR.

Time Search

You can search for recorded data of a desired time.
The displayed time is based on the local time zone and the daylight saving time (DST). Therefore, data recorded at the same time from different areas may differ based on the time zone and the DST.


Time Search
2015-01-01
Go to First
Go to Last
Overlapped Data
List0
Zoom In
Zoom Out
02:51:46
0
12
24
All
Data
CAM 01
CAM 02
CAM 03
CAM 04
CAM 05
CAM 06
CAM 07
CAM 08
2015/01/01 02:51:46
Standard
Camera Event
Schedule
Audio
Sensor
DST
Motion
1/2
Play
Return


Time Search
2015-01-01
Go to First
Go to Last
Overlapped Data
List0
Zoom In
Zoom Out
02:51:46
2
2:30
3
All
Data
CAM 01
CAM 02
CAM 03
CAM 04
CAM 05
CAM 06
CAM 07
CAM 08
2015/01/01 02:51:46
Standard
Camera Event
Schedule
Audio
Sensor
DST
Motion
1/2
Play
Return

1. Select <**Time Search**> in the <**Search**> menu.
2. In the date selection window, click on the < ⬍ > button to select a search date.
   - For using the calendar, refer to "**To use the calendar**". (Page 60)

3. The record data on the specific date will be listed.
   The display bar is different according to the data type. So check the data type for the color in the left pane.

   - If DST (Daylight Saving Time) is configured, overlapping multiple recordings may be produced for a certain moment of time. Such a time section is distinguished with red color to mark DST section.

4. Using the directional button(▲▼◄►) on your remote control, you can set the search condition or press the [**ENTER**] button.

- Go to First : Move to the earliest recording date.
- Go to Last : Move to the latest recording date.
- Time : Enter a time to perform the search or use the up/down button <⬍> to select one.
- Zoom In : The map enlarges in detail.
  It will switch in the sequence of 24hours - 12 hours - 6 hours - 2hours - 1hour.
- Zoom Out : The map will switch in the reverse order of the detailed mode above.
  It will switch in the sequence of 1hour - 2 hours - 6 hours - 12 hours - 24 hours.
- Preview : Click <**Channel**> and select (click, drag) a time in <**Duration**> to display a still image for the portion.
  - If the selected channel does not contain any recorded data, it will be marked black.

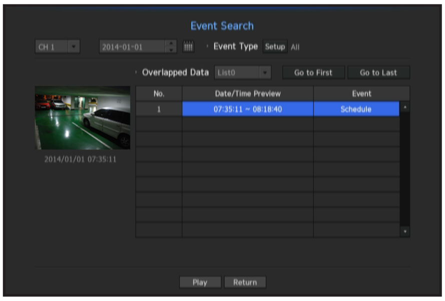
5. Select a data item and click <**Play**>.
   The screen switches to the data playback mode.

Color indications depending on current recording status

The recorded data types are represented through the use of different colors. Each color corresponds to a certain recording type.

Event Search

You can search for events by the channel and play them.



CH 1
2014-01-01
Event Type All
Overlapped Data List0
2014/01/01 07:35:11

No.	Date/Time Preview	Event
1	07:35:11 ~ 08:18:40	Schedule

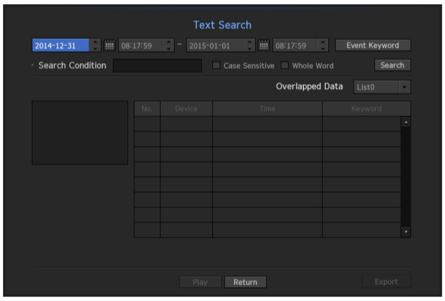
1. Select <**Event Search**> in the <**Search**> menu.
2. Using the directional button(▲▼◄►) on your remote control, you can set the channel, the search date, and the search condition and then press the [**ENTER**] button.
   - Depending on the menu selected, it will search for all/motion detection/video analysis/audio detection/sensors/standard/general recording events.

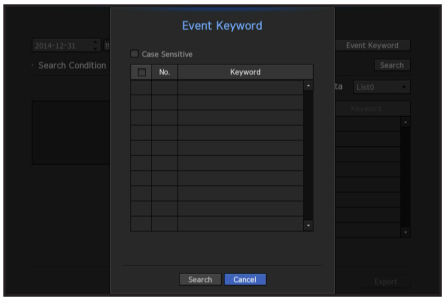
- Date/Time Preview : If you select a data item in the list, the still image of the selected data will be displayed in the left preview pane.
- Event : Displays the type of the event that occurred.

3. Select a data item and click <**Play**>.
   The screen switches to the event data playback mode.

Text Search

You can search data that was entered into POS systems connected to NVR.


Text Search
2014-12-31
08:17:59
~
2015-01-01
08:17:59
Event Keyword
Search Condition
☐ Case Sensitive
☐ Whole Word
Search
Overlapped Data
List0
No.
Device
Time
Keyword
Play
Return
Export


Event Keyword
☐ Case Sensitive
☐
No.
Keyword
Search
Cancel

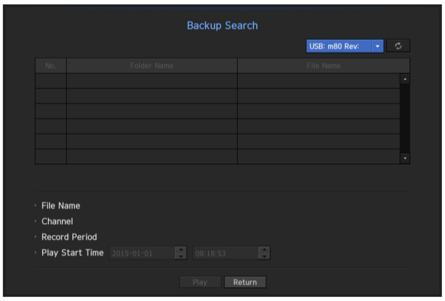
1. Select <**Text Search**> from the <**Search**> menu.
2. Use the up, down, left, and right (▲▼◀▶) buttons to configure the search condition setup items, and press the [**ENTER**] button.
   - ■ A deeper and more detailed search can be performed by using specific characters.

- Search characters : Enter characters using a virtual keyboard.
- Event Keyword : Search using a condition set in the "**Device** > **Text** > **Event settings**" menu. (Page 88)
- Search Condition : Enter a word to search in the input screen and press the <**Search**> button.
  - <**Case Sensitive**> : If this option is checked, the search terms are case-sensitive.
  - <**Whole Word**> : If checked, only results that exactly match the input words will be displayed.
- Time overlap : This is displayed if there is data duplicated during a preset time interval.
- Preview screen : If data is selected from a list, a preview image is displayed.
  All information is displayed in the text display below.
- Export : Stores all text search information recored in NVR to storage media.

3. Select data and <**Play**>.
   Moves to a replay screen for searched text data.

Backup Search

Searches for backup data in the connected backup device.
Only data in the format of NVR is included in the search.


Backup Search
USB: m80 Rev:
No.
Folder Name
File Name
File Name
Channel
Record Period
Play
Return

Play Start Time 2015-01-01 08:18:53

1. Select <**Backup Search**> in the <**Search**> menu.
2. Using the directional button(▲▼◄►) on your remote control, you can set the channel, the search date, and the search condition and then press the [**ENTER**] button.

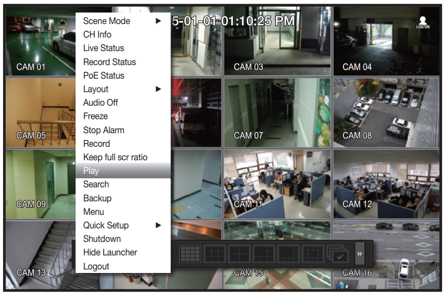
- Channel : Displays the recorded channel.
- Record Period : Displays the record period.
- Play Start Time : Select a time that you start playing.

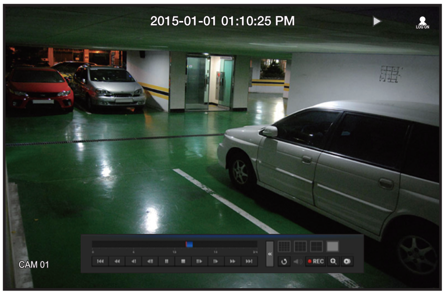
3. Select a data item and click <**Play**>.
   The screen switches to the backup data playback mode.

PLAYBACK

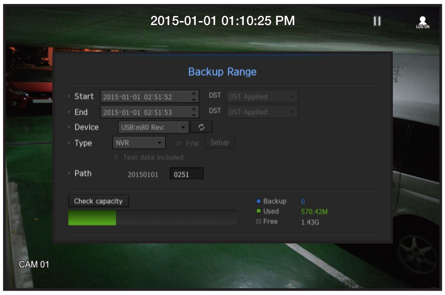
Play

You can play data stored in the HDD and backup a desired portion of the data.


5-01-01 01:10:25 PM
Scene Mode
CH Info
Live Status
Record Status
PoE Status
Layout
Audio Off
Freeze
Stop Alarm
Record
Keep full scr ratio
Play
Search
Backup
Menu
Quick Setup
Shutdown
Hide Launcher
Logout
CAM 01
CAM 03
CAM 04
CAM 05
CAM 07
CAM 08
CAM 09
CAM 11
CAM 12
CAM 13
CAM 15
CAM 16


2015-01-01 01:10:25 PM
REC
CAM 01

1. In the live menu screen, select <**Play**> menu or click on < ▶ > in the launcher menu or press the [▶] button on your remote control.
2. Using the up/down(▲▼) button, select the search menu.
   - If this is the first time you try to play, you will start with the data search window.
     For data search, refer to "**Search**". (Page 109)
3. Select a data item and click <**Play**> in the Search menu.
   The selected data is played and the play launcher appears on the screen.
   - If there is an existing data, <**Play**> will start immediately without performing the search.

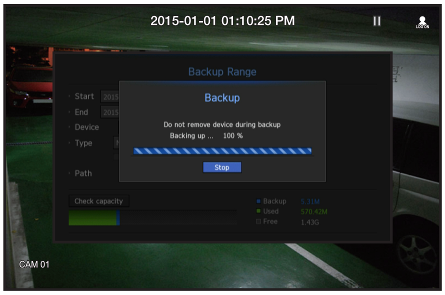


2015-01-01 01:10:25 PM

Backup Range

Start 2015-01-01 02:51:52 DST DST Applied
End 2015-01-01 02:51:53 DST DST Applied
Device USB:m80 Rev:
Type NVR ☐ P/W Setup
☐ Text data included
Path 20150101 0251
Check capacity
Backup 0
Used 570.42M
Free 1.43G

CAM 01



2015-01-01 01:10:25 PM

Backup Range

Backup

Do not remove device during backup
Backing up ... 100 %

Stop

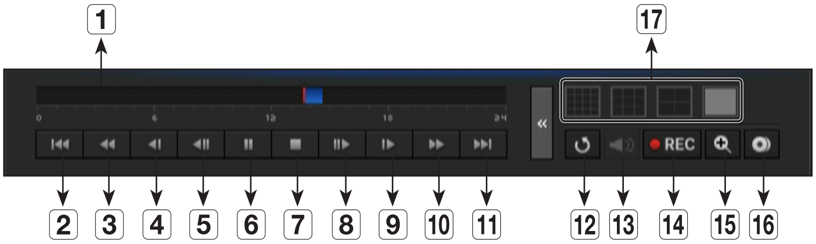
Check capacity
Backup 5.31M
Used 570.42M
Free 1.43G

CAM 01

- Playback Information : Displays the date and time of the current data in the top corner.
- Backup : Click < ◉ > to set the current time to the start time of backup; you can specify a backup area using the mouse (yellow triangle).
  Click < ◉ > again to set the current time to the end time of the backup and the "**Backup Range**" window appears.
  - Type : Supports formats of NVR and SEC.
    - You can select whether or not to "**Text data included**" for SEC format.
  - Device : Select a backup device.
  - Check Capacity : Enables you to check the capacity of the selected storage device.

4. If you want to return to the live screen while playing, click < ■ > on the launcher menu or press the [■] button on your remote control.

Using the Playback Button

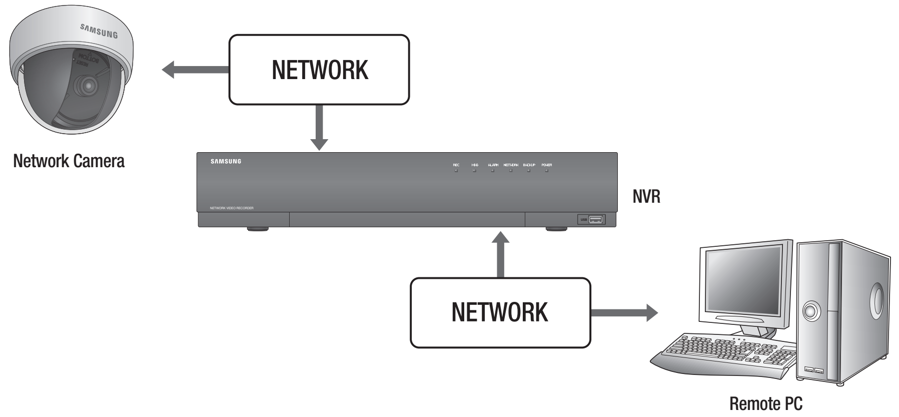


	Name	Description
1	**Play Timeline**	Indicates the current playback point, and can be used to move.
2	**Skip Backward**	Moves backward by unit time.
3	**Backward Fast Play**	Used for quick backward search while in Play.
4	**Backward Slow Play**	Used for backward frame-by-frame search while in PAUSE.
5	**Step Backward**	Moves backward by one frame at a time.
6	**Pause**	Stops playing the current video temporarily.
7	**Stop**	Stops playback and moves to the live screen.
8	**Step Forward**	Moves forward by one frame at a time.
9	**Forward Slow Play**	In a split mode, the real time playback may not be supported, depending on the record quality, resolution and number of channels. And some frame rates may be supported.
10	**Forward Fast Play**	Used for quick forward playback.
11	**Skip Forward**	Moves forward by unit time.
12	**Return**	Return to the search setup screen.
13	**Audio**	Sets Audio ON/OFF.
14	**REC**	Records all channels in Live mode.
15	**ZOOM**	This is available in Single mode, which will enlarge the video from a selected channel. To cancel the zooming, simply double-click the enlarged image or select <**Close Zoom**> in the Live screen menu.
16	**Partial Backup**	Begins backup of the selected section of the video being played, with the specified starting/ending point.
17	**Mode Switch**	Click on the desired playing mode or press the [**MODE**] button to change the split mode.

starting web viewer

WHAT IS WEB VIEWER?

WebViewer is a software program with which the operator can access a remote NVR (Network Video Recorder) for real-time monitoring, PTZ control (if configured) or search.



Product Features

- Remote connection using the browser
- PTZ camera control enabled
- Supports 1, 4, 9, 16 camera viewing formats (maximum of 16 cameras in the list).
- Saving function in JPEG/BMP/PNG image format for printing and storage.
- Record video in AVI format-compatible with popular media players. (The integrated codec is needed)
- To play the video in Windows Media Player, you must download and install the relevant codec from www.windows7codecs.com. (version 4.0.3 or higher)

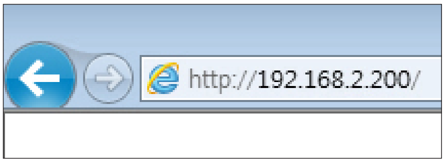
System Requirements

The following lists the minimum suggested hardware and operating system requirements needed to run the Web Viewer.

Item	Minimum	Recommended
CPU	Intel Core 2 Quad 2.5GHz or higher	Intel i7 (3.5GHz) or more
RAM	2GB or more	4GB or more
HDD	200GB or more	500GB or more
VGA Memory	512MB or more	1GB or more
Display Resolution	1280 x 1024 or higher	
OS	Window XP(service pack 2 or above), Vista, 7, 8, Mac OS X(10.6 or above) OpenGL (GPU Accelerator supported) Web browser Windows environment : Latest security patch, IE 8 or higher with bug patches (IE 9 recommended), IE 10, Chrome 26.x or higher, FireFox 19.x version or higher Mac OS X environment : Latest security patch, Safari 6.0.3 or higher with bug patches	
Network	10/100 Ethernet NIC	

CONNECTING WEB VIEWER

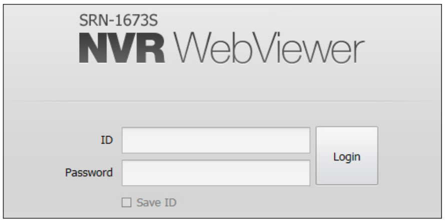
1. Open your web browser and type the IP address or URL of NVR into the URL address box.



http://192.168.2.200/

- You need to connect network 2 before you can access the web viewer.
- "**192.168.2.200**" is set to IP by default.
- You must have specified the IP address in "**Network** > **Interface**".
- The URL connection will be enabled only when the DDNS connection settings have been completed.
  For more information, refer to "**Network Configuration** > **DDNS**". (Page 101)

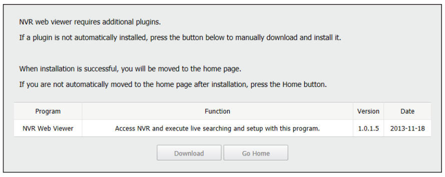
2. A user with the admin permissions should provide the admin ID and password. A registered user should provide the user ID and password.



- By default, the ID and password for the web viewer are "**admin**" and "**4321**", and these should be changed during the installation wizard stage.
  The installation wizard can only be used the first time the product is used.
- Set password for your wireless network if you use the product with a wireless router. Being not protected with password or using the default wireless router password may expose your video data to potential threat.
- Please change your password every three months to safely protect personal information and to prevent the damage of the information theft.
  Please, take note that it's a user's responsibility for the security and any other problems caused by mismanaging a password.

- It allows up to 10 simultaneous access including the Admin and general users.
- Password of the Admin and general users can be changed in <**User**> menu of the NVR.
- Normal users should have set <**Webviewer**> under <**Restriction on Network Access**> to Use before connecting to the Web Viewer. (Page 63)
- All settings are applied by the NVR's settings.

3. The plugin installation confirmation pop-up window will appear.

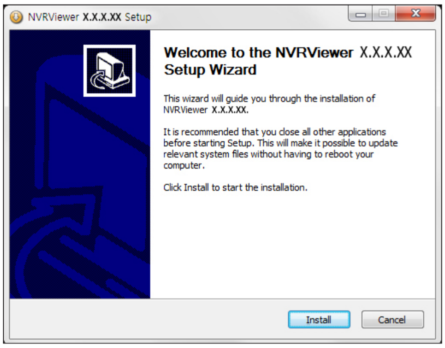


NVR web viewer requires additional plugins.
If a plugin is not automatically installed, press the button below to manually download and install it.

When installation is successful, you will be moved to the home page.
If you are not automatically moved to the home page after installation, press the Home button.

Program	Function	Version	Date
NVR Web Viewer	Access NVR and execute live searching and setup with this program.	1.0.1.5	2013-11-18

4. When a program installation wizard window appears, press the [**Install**] button to install the program.
   - The version of the program installed may vary depending on the update version.



NVRViewer X.X.X.XX Setup

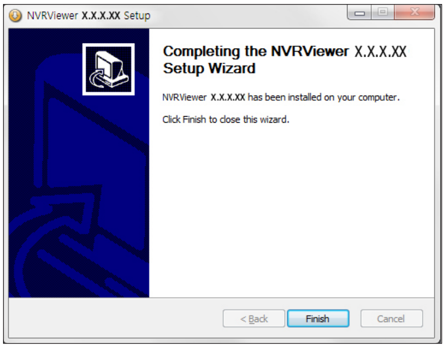
Welcome to the NVRViewer X.X.X.XX Setup Wizard

This wizard will guide you through the installation of NVRViewer X.X.X.XX.

It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.

Click Install to start the installation.

5. When program installation is complete, click on the [**Finish**] button.



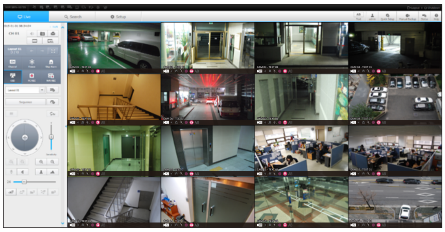
NVRViewer X.X.X.XX Setup

Completing the NVRViewer X.X.X.XX Setup Wizard

NVRViewer X.X.X.XX has been installed on your computer.

Click Finish to close this wizard.

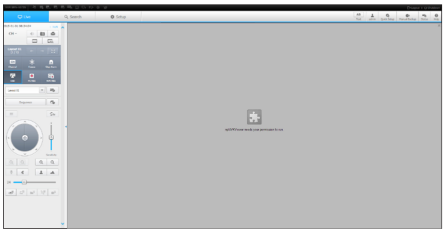
6. When installation is finished, and you are successfully logged in, the live viewer main screen will appear.



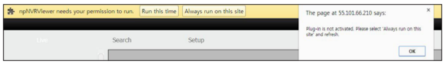
If you want to access the web viewer with multiple browsers

Set auto execution of plugin (npNVRViewer) in the browser menu that you first access and refresh the screen after activating the plugin or selecting plugin reliability.

- Each time the browser is upgraded in the future, the plugin activation method can be changed. Plug in setting menu can be referred to in the browser manual.



- For chrome browsers, "**Plug in is not activated. Please select 'Always run on this site' and refresh**", then select the '**always execute on this site**' button in the top of the browser.



npNVRViewer needs your permission to run.

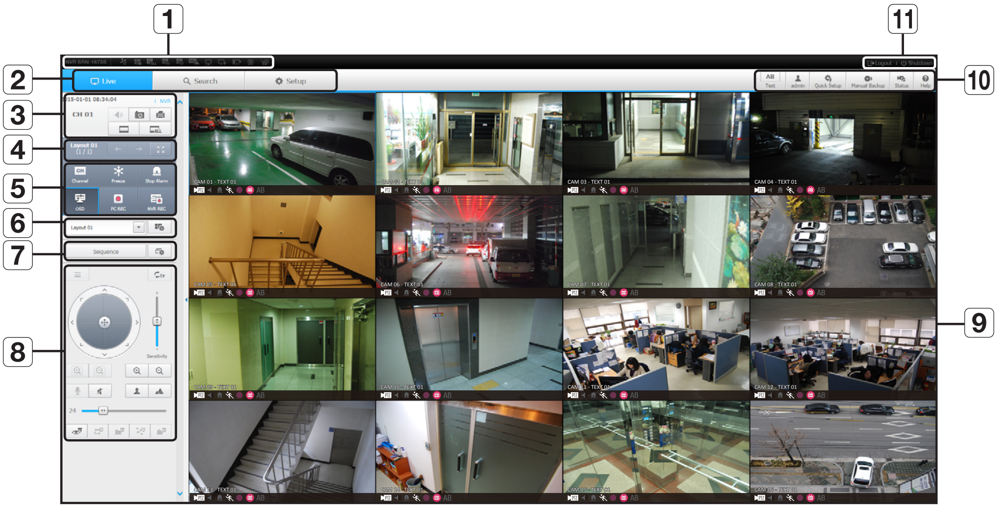
The page at 55.101.66.210 says:

Plug-in is not activated. Please select 'Always run on this site' and refresh.

LIVE VIEWER

You can check the video from camera registered in the NVR connected from a remote PC. Also, you can adjust the camera and check the network transfer status.

Live Viewer Screen



Menu		Description
1	**System Stauts Indicator**	Displays icons to display the screen or system status.
2	**Menu Selection**	Switches into corresponding menu screen by clicking each menu.
3	**Date/channel**	Shows the access date/time and the selected channel.
	Sound	Sets the sound connected to each channel to either ON/OFF.
	Capture	Saves current video for the selected channel in the path designated by the user.
	Print	Prints current video image for the selected channel through designated printer.
	Keep ch. scr ratio	Changes screen ratio of the selected channel.
	Keep full scr ratio	Changes screen ratio for all channels.
4	**Channel change/full screen**	Switches to the previous/next channel group. Switch from the full screen to the split screen.

Menu		Description
5	**Channel information**	Shows the channel information selected.
	Pause	Temporarily stops the videos in all the channels or deactivates the Pause function in suspending status.
	Stop Alarm	Deactivates an alarm when it occurs.
	OSD	Check the OSD item to display the OSD screen information in the web viewer window.
	PC recording	Saves the real-time video, in AVI format, from the selected channel in a designated folder on the PC.
	NVR recording	Start and stop NVR recording.
6	**Save layout**	Save layout.
7	**Switching**	Set the sequence.
8	**PTZ**	Controls connect PTZ camera(s).
9	**Display Pane**	Displays the video of camera connected to NVR.
10	**Text**	Turns text devices and data output located in the right side of Search ON/OFF.
	ID	Display the ID of user connected.
	Quick setup	Simple camera registration and recording settings.
	Manual backup	Manually backup the video of the camera connected.
	Status	Shows the camera live and recording status.
	Help	Move to the help window.
11	**Logout**	Performs logout process.
	Close	Turn off the NVR system.

LIVE SCREEN CONFIGURATION

System Status

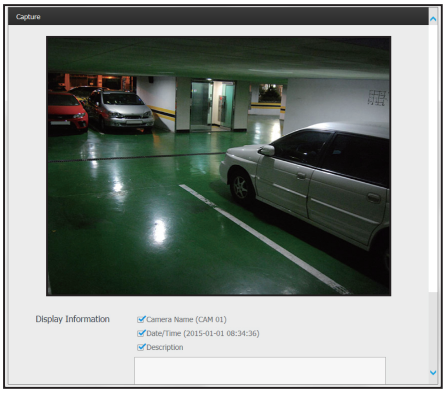
You can check the status or operation of the NVR with the icons on the live screen.

Item		Description
System Operation	⊘	It is displayed when there is a problem with the fan.
	FULL	Displayed if the HDD is full and the NVR has an insufficient space to record.
	NO	Displayed if no HDD is installed or the existing HDD should be replaced.
	⊘	Displayed if the HDD needs a technical examination.
	REC ⚠	It is displayed when the max permitted amount of data for each channel is exceeded.
	🖥	It is displayed when the network is overloaded. ▪ It occurs when the max receiving performance is exceeded, causing an overload to the CPU. It will disappear if you modify the camera setting or delete a camera to reduce the level of performance overload.
	⬆	It is displayed when there is firmware to update the server. It is displayed when there is firmware to update the server.
	🔋	It is displayed if the battery level for an NVR device is empty.
	❄	If you press the screen stop button, it is displayed.
	☑	It is displayed when all the channels are switched at the set time interval.

To capture a screen

1. Click < > button.
   When a pop-up window appears, select the saving path for captured image.
2. Select the path and name the file. And then click the [**OK**] button.
3. Save current camera's video image as .bmp, .jpg or .png file.

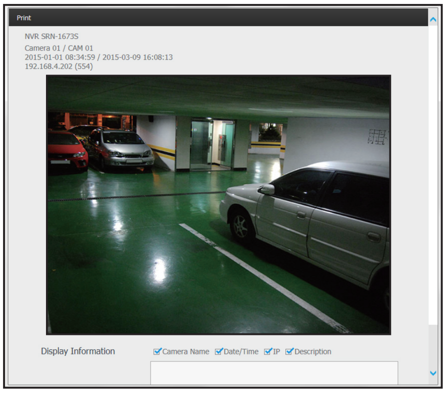
- If the viewer is running without the administrator's permission in Windows Vista/7, you may not save the captured image as .bmp, .jpg or .png file.



Display Information
☑ Camera Name (CAM 01)
☑ Date/Time (2015-01-01 08:34:36)
☑ Description

To print a screen

1. Click < > button.
2. Print current camera's video image with the printer connected to the PC operating the Web Viewer.



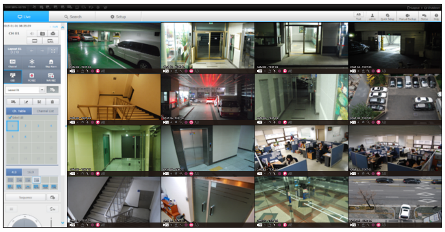
NVR SRN-1673S
Camera 01 / CAM 01
2015-01-01 08:34:59 / 2015-03-09 16:08:13
192.168.4.202 (554)

Display Information ☑ Camera Name ☑ Date/Time ☑ IP ☑ Description

Setting the layout

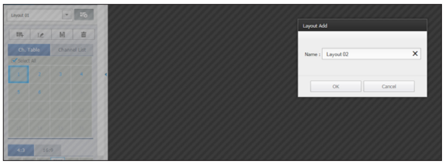
If you don't add or save it in the layout after registering a camera, the live screen will not be displayed.

Click on the < > button to launch the layout setting screen.



If you want to add a layout

Click on < >.
Set the layout name to add and click on the <**OK**> button to add it.

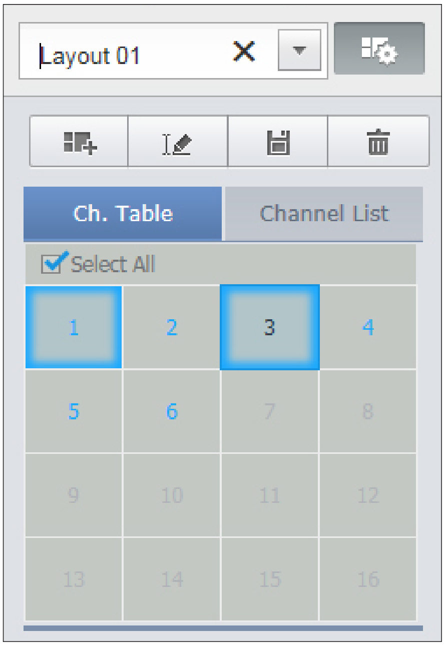


Layout Add

Name : Layout 02

If you want to change the layout name

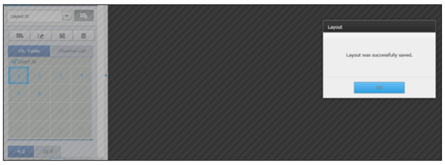
Select the layout name to change and click on < >.
After changing the name, click on the outside of the layout window to change the name.


Layout 01
Ch. Table
Channel List
Select All
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

If you want to save the layout

Click on < >.
The changed layout will be saved.

- The layout for each user is saved separately.



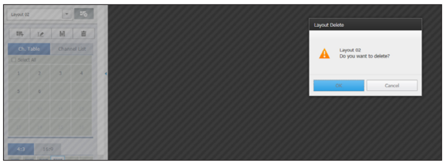
Layout

Layout was successfully saved.

If you want to delete the layout

After selecting the layout to delete, click on < 🗑 >.
The selected layout will be deleted.

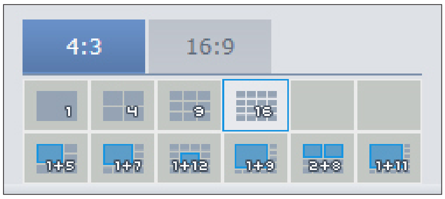
- Unless you press the Save or Delete button, changes will not be saved.

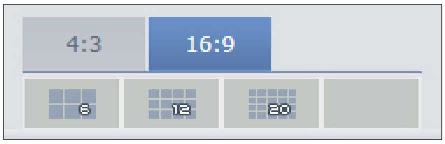

Layout 02
Ch. Table
Channel List
Select All
4:3
16:9
Layout Delete
OK
Cancel

Layout 02
Do you want to delete?

Changing Split Mode

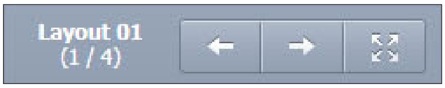
When clicking the Split Mode selection button, the screen is changed into the selected split mode.


4:3
16:9
1
4
9
16
1+5
1+7
1+12
1+9
2+8
1+11


4:3
16:9
6
12
20

To go to your desired channel screen

Press the < ← → > button to move to the previous/next channel group.


Layout 01
(1 / 4)

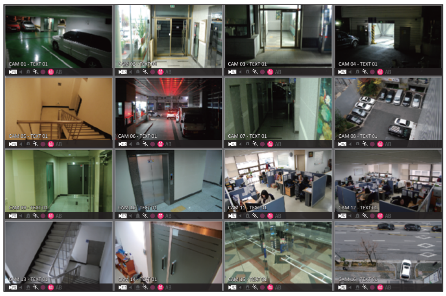
To switch to full screen mode

Click < ⛶ >.

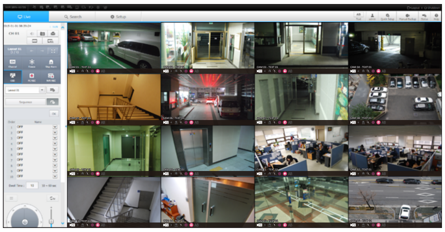
Current split screen appears in full screen.

Press the [**ESC**] key to exit the full screen mode.

- MAC Safari does not support full screen.



Setting screen switching

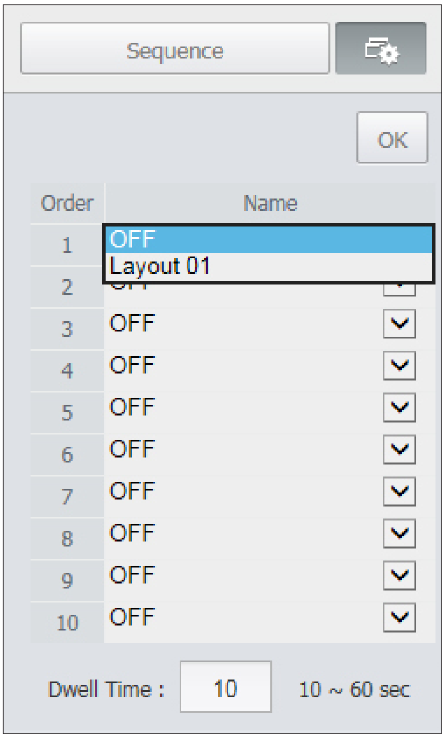


If you don't register the layout, the screen switching function will not operate.

You can view the layouts one by one.

Click on the < ⚙ > button to launch the switching setting window.

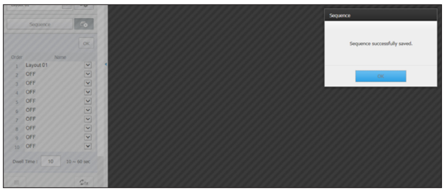
1. Push < ⌄ > sequentially and specify a layout to display in order.
2. Enter the desired screen switching time.



Order	Name
1	OFF Layout 01
2	OFF
3	OFF
4	OFF
5	OFF
6	OFF
7	OFF
8	OFF
9	OFF
10	OFF

Dwell Time : 10 10 ~ 60 sec

3. Click on the <**OK**> button to save the designated sequence.

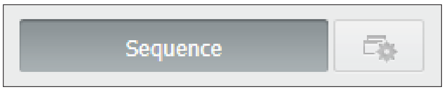


Sequence

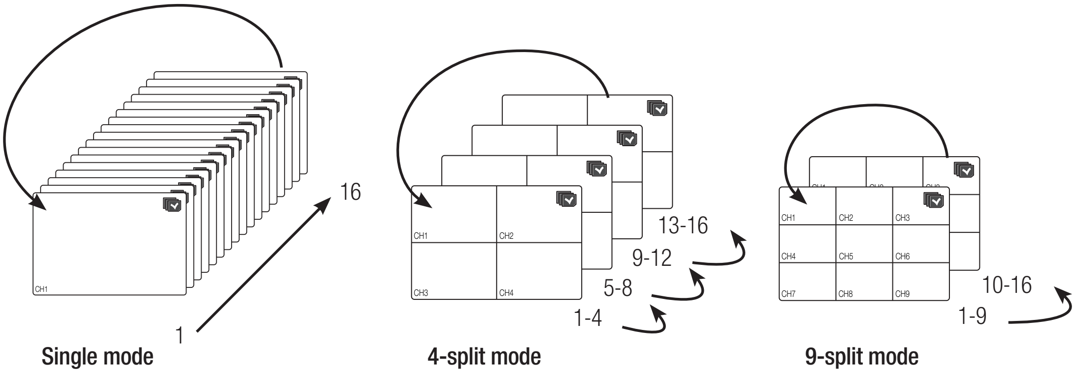
Sequence successfully saved.

To perform switching

Click on the <**Sequence**> button to activate the switching mode and run a sequence.



Auto Sequence


16
CH1
1
Single mode
CH1
CH2
CH3
CH4
13-16
9-12
5-8
1-4
4-split mode
CH1
CH2
CH3
CH4
CH5
CH6
CH7
CH8
CH9
10-16
1-9
9-split mode

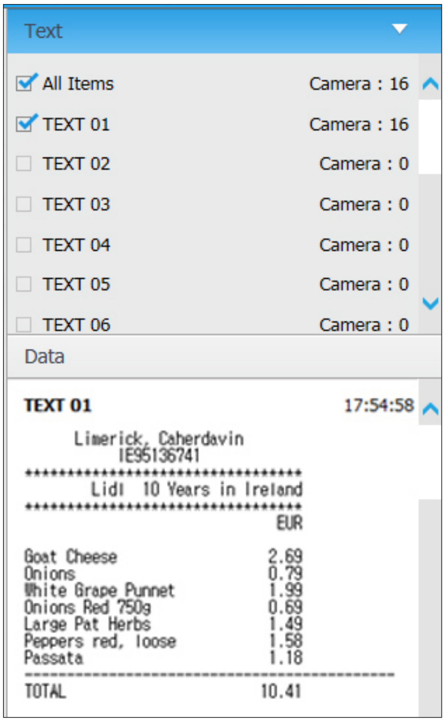
- In a split mode, If you have set <**Sequence switching time**> in "**Device** > **Monitor**", Auto Sequence will be conducted at the set interval. (Page 85)
- When switching to another channel, the video may be slightly delayed depending on network status.
- If you perform automatic switching of a single screen, the layout setting menu will be deactivated during operation.

How to query text devices and data

Checks the text data transmitted from POS systems that are connected to NVR.

If the < AB Text > button is selected, you can turn on/off the function to query text devices and data located in a separate area.

- A queried device should be set in terms of its usage, channel, etc. by selecting "**Device** > **Text** > **Device**". (Page 87)



☑ All Items — Camera : 16
☑ TEXT 01 — Camera : 16
☐ TEXT 02 — Camera : 0
☐ TEXT 03 — Camera : 0
☐ TEXT 04 — Camera : 0
☐ TEXT 05 — Camera : 0
☐ TEXT 06 — Camera : 0

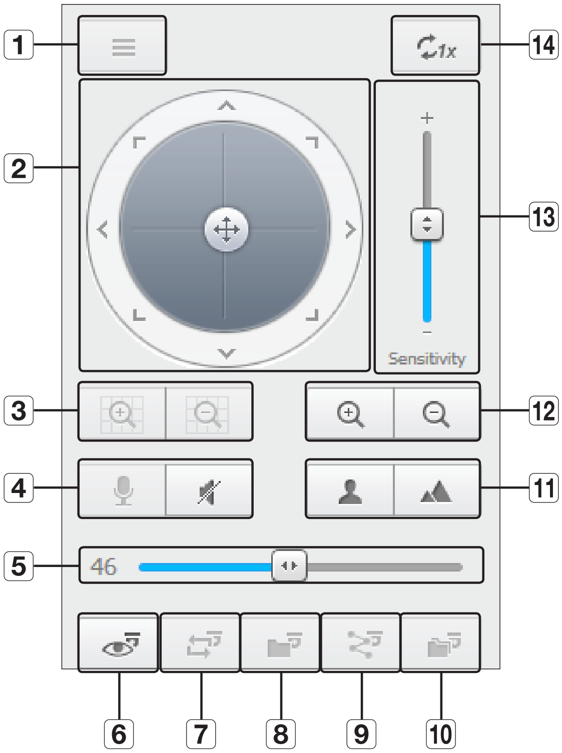
```
TEXT 01                              17:54:58
        Limerick, Caherdavin
            IE95136741
**************************************
          Lidl  10 Years in Ireland
**************************************
                                     EUR

Goat Cheese                         2.69
Onions                              0.79
White Grape Punnet                  1.99
Onions Red 750g                     0.69
Large Pat Herbs                     1.49
Peppers red, loose                  1.58
Passata                             1.18
--------------------------------------------------
TOTAL                              10.41
```

CONTROLLING A CONNECTED NETWORK CAMERA

Controlling PTZ

If PTZ camera is connected, the < PTZ > icon appears on screen. When selecting corresponding camera channel, the PTZ tab is provided to allow you to control the PTZ.



Item		Description
1	**Camera menu**	Displays the camera settings menu.
2	**Direction Adjustment**	Use this to adjust the direction of the camera or click the crosshair in the center to use it as an OK button.
3	**Digital zoom**	Adjust digital zooming to make an image larger or smaller.
4	**Sound**	Set audio mute for the PC and camera's audio talk.
5	**Volume control**	Change the PC volume between 0 and 100.
6	**Preset**	Sets the preset position for camera framing and moves to designated preset position when selecting a desired preset.
7	**Swing**	Swing is a monitoring function that moves between two preset points and enables you to trace the motion.

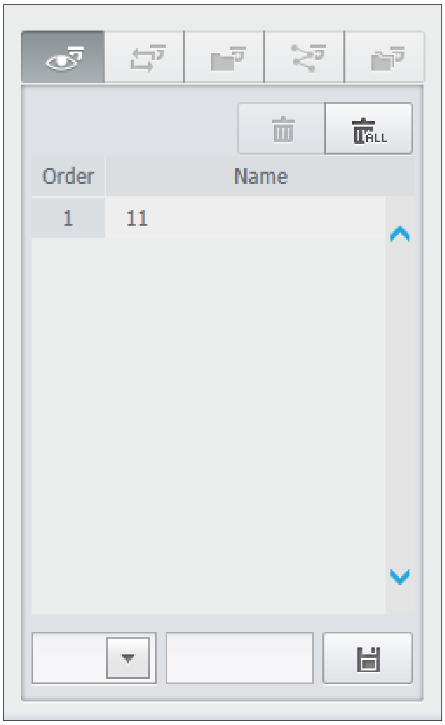
Item		Description
8	**Group**	Moves in the path specified by combining the preset.
9	**Trace**	Moves camera's framing in the predefined path.
10	**Tour**	Moves in the path specified by combining multiple groups.
11	**Focus**	Adjusts the focus of the camera.
12	**Zoom**	Zooms in/out the image by controling camera's zoom.
13	**Sensitivity**	Adjust the sensitivity of your camera operation.
14	**Digital Zoom Off**	Returns to the original size from the zoomed state.

To set a preset

1. Click < > button to display "**Preset**" window.
2. Click on < > to select the preset order.
3. Enter the name of preset.
4. Use direction keys to adjust the direction which camera aims at.
5. Click the < > button.

To activate the preset

1. Click < > button to display "**Preset**" window.
2. Select a desired preset to activate from the list.
   The camera's framing moves to the preset position.



To activate Swing(Auto-pan), Group(Scan), Trace(Pattern) and Tour

You can activate listed functions in the same manner as using a preset. For more information, refer to corresponding user manul of applicable camera.

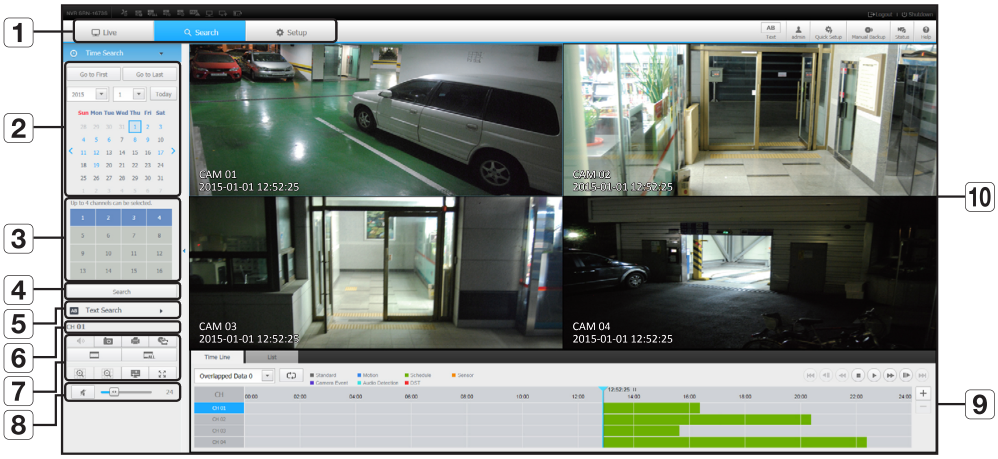
- Only selective functions of the camera can be supported, depending on camera.

search viewer

SEARCH VIEWER

You can search and play the video record saved in NVR by accessing NVR remotely.

Search Viewer Screen


1
2
3
4
5
6
7
8
9
10
Live
Search
Setup
Time Search
Go to First
Go to Last
2015
Today
Sun Mon Tue Wed Thu Fri Sat
Up to 4 channels can be selected.
Search
Text Search
CH 01
CAM 01
2015-01-01 12:52:25
CAM 02
2015-01-01 12:52:25
CAM 03
2015-01-01 12:52:25
CAM 04
2015-01-01 12:52:25
Time Line
List
Overlapped Data 0
CH 01
CH 02
CH 03
CH 04

Item		Description
1	**Menu Selection**	Switches to the corresponding menu screen by clicking each menu.
2	**Calendar**	Displays the video-recorded date in blue and today in red. Click the date in blue color to display the recorded video information in timeline.
3	**Channel selection**	Displays the search channels.
4	**Search**	Search for the user designated channel for the selected date.
5	**Text Search**	Searches data that was entered into POS systems connected to NVR.
6	**Channel displays**	Display the selected channel number.

Item		Description
7	**Sound**	Change the PC volume between 0 and 100.
	Capture	Saves current video for selected channel in the designated path.
	Print	Prints current video image for selected channel through the assigned printer.
	Section backup	Backup the video for the selected section.
	Keep ch. scr ratio	Changes screen ratio of the selected channel.
	Keep full scr ratio	Changes screen ratio for all channels.
	Magnify/Shrink	Magnify or shrink the current video for the selected channel.
	OSD	Displays the channel information.
	Full screen	Show the four way split screen in the full screen.
8	**Sound control**	Adjust the audio for the video searched.
9	**Recording Color**	Displays the corresponding color depending on recorded data type if you place your mouse cursor on that area.
10	**Display Pane**	Plays corresponding data on the screen if you select a search result.

Time Search

You can search recorded data by setting date and time.

To search by date

You can select the search date by using calendar.

1. Click on < ‹, › > to select the year/month for your search.
   If a date has data associated with it, it is displayed in blue. The current date is displayed as a blue box.
2. Click the date to search in calendar.
   The first image of searched video data on the date is displayed on screen and the data is displayed in the timeline.
3. To search video data on today, click <**Today**>.
   Today's date is selected.

search viewer

Color indications depending on current recording status

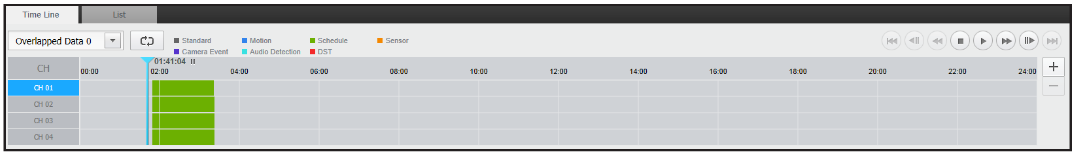
Displays the corresponding color according to the recorded data type.

■ Standard	🟦 Motion	🟩 Schedule	🟧 Sensor
🟪 Camera Event	🟦 Audio Detection	🟥 DST	

- If 2 or more kinds of recording type are mixed for the same timeline, only the recording type with higher priority is displayed. (Priority: Standard > Motion > Schedule > Sensor > Camera Event > Audio Detection > DST)

To adjust timeline

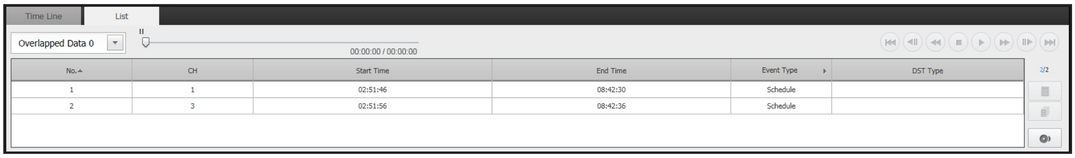
If searched data are overlapping, you can select a desired data, move its playback time point, and zoom in/out the timeline.


Time Line
List
Overlapped Data 0
Standard
Motion
Schedule
Sensor
Camera Event
Audio Detection
DST
CH
01:41:04
00:00
02:00
04:00
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
24:00
CH 01
CH 02
CH 03
CH 04
+
–

1. Select the number of data to search if data is overlapping.
   It appears only when data are overlapped and assigns <**0**> to the most recent data.
2. Click your desired time point to play on the timeline.
   The playback start point is moved.
3. Click <**+**> / <**-**> to zoom in/out the zoom factor to display time.
4. When magnified, if you want to view the pre/post timeline, click on the timeline and drag it in the direction you want to move it.

If you want to check the recording list

The results for each recording section will be displayed.

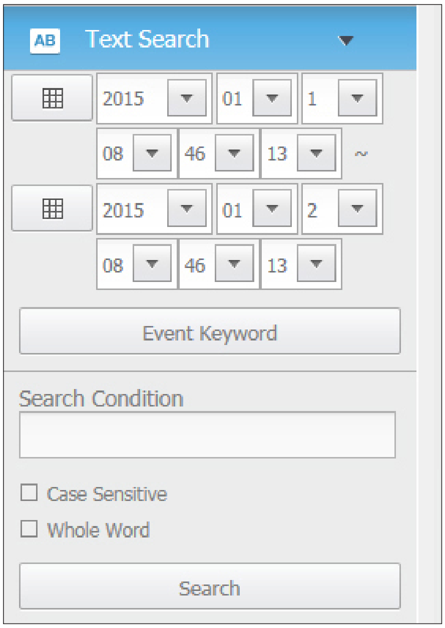

Time Line
List
Overlapped Data 0
00:00:00 / 00:00:00
2/2

No.▲	CH	Start Time	End Time	Event Type	DST Type
1	1	02:51:46	08:42:30	Schedule	
2	3	02:51:56	08:42:36	Schedule	

Text Search

You can search data that was entered into POS systems connected to NVR.

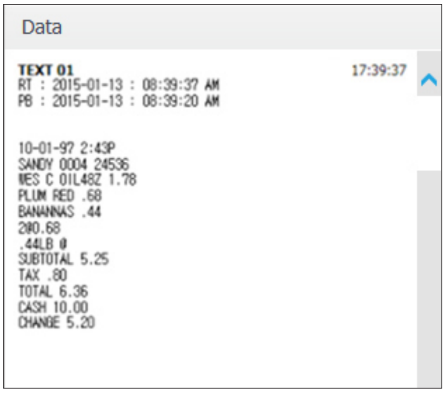
If you want to search by a text


AB
Text Search
2015
01
1
08
46
13
~
2015
01
2
08
46
13
Event Keyword
Search Condition
☐ Case Sensitive
☐ Whole Word
Search

1. Select a date and time to search.
2. Set event keywords and search conditions.
   - Search Condition : Enter a text to search.
   - Event Keyword : Searches based on the condition set in "**Device** > **Text** > **Event settings**". (Page 88)
   - <**Case Sensitive**> : If checked, search terms are case-sensitive.
   - <**Whole Word**> : If checked, only results that exactly match the input search terms are returned.
3. Click the <**Search**> button.
   - Refer to <**Text Search**> for the detailed text search method. (Page 111)

If you want to restore text search

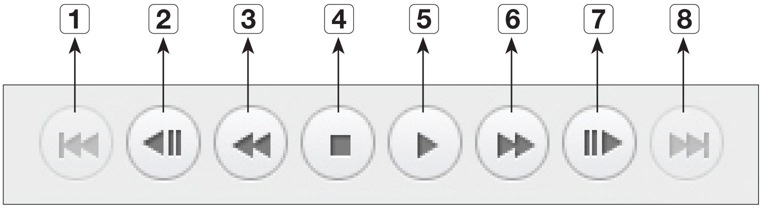
When you enter search conditions and replay the search result with ON/OFF button in the upper right hand, it is possible to query text data.



```
TEXT 01                                        17:39:37
RT : 2015-01-13 : 08:39:37 AM
PB : 2015-01-13 : 08:39:20 AM


10-01-97 2:43P
SANDY 0004 24536
WES C OIL48Z 1.78
PLUM RED .68
BANANNAS .44
200.68
.44LB 0
SUBTOTAL 5.25
TAX .80
TOTAL 6.36
CASH 10.00
CHANGE 5.20
```

Names and Functions of Play Buttons



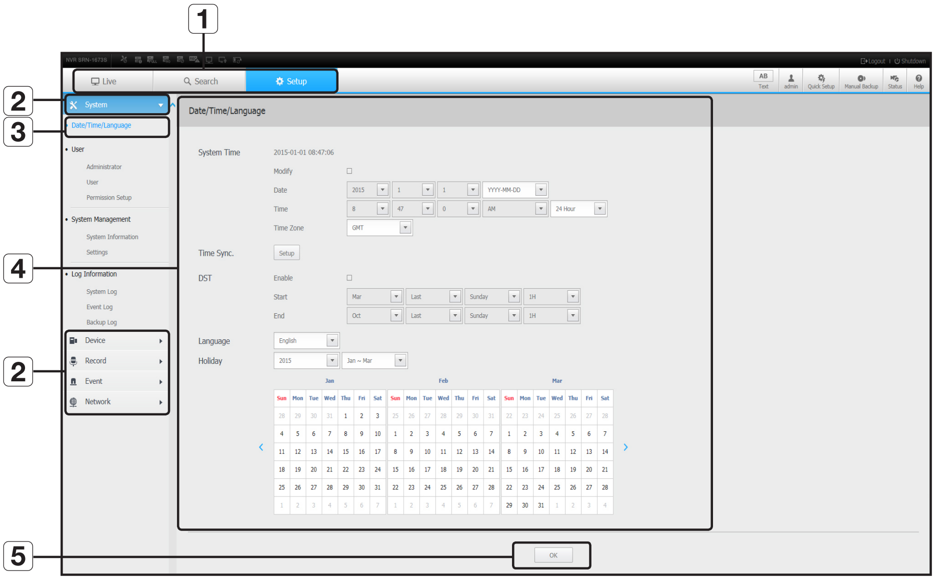
Item		Description
1	**Back**	Returns to the previous event.
2	**Previous frame**	Move backward one sec.
3	**Backward X times speed playing**	Used to rewind at X times the speed.
4	**Stop**	Stops the video replay.
5	**Play/Pause**	Video is played and paused.
6	**Forward X times speed playing**	Play the video forward at X times the speed.
7	**Next frame**	Move forward one sec.
8	**Move forward**	Proceeds to the next event.

setup viewer

SETUP VIEWER

You can configure the NVR settings remotely on the network.
To configure the NVR settings, click <**Setup**>.

Settings Screen


1
2
3
4
2
5
NVR SRN-1673S
Logout | Shutdown
Live
Search
Setup
Text
admin
Quick Setup
Manual Backup
Status
Help
System
Date/Time/Language
User
Administrator
User
Permission Setup
System Management
System Information
Settings
Log Information
System Log
Event Log
Backup Log
Device
Record
Event
Network
Date/Time/Language
Setup
OK

System Time 2015-01-01 08:47:06
Modify ☐
Date 2015 1 1 YYYY-MM-DD
Time 8 47 0 AM 24 Hour
Time Zone GMT
Time Sync.
DST Enable ☐
Start Mar Last Sunday 1H
End Oct Last Sunday 1H
Language English
Holiday 2015 Jan ~ Mar

Item		Description
1	**Menu Selection**	Click each menu to switch into corresponding menu screen.
2	**Parent Menu**	Configure the settings or select a parent item to change the existing settings.
3	**Sub-Menu**	Among the sub-menus of selected parent menu, select a desired item to set.
4	**Detailed Menu**	Click desired item's input field to change and enter a desired value.
5	**OK**	Apply the modified settings.

System

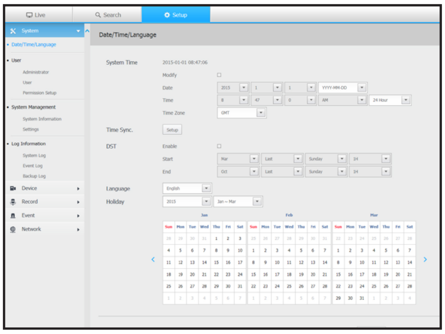
You can configure the various settings of the NVR system.

Date/Time/Language

For more information, refer to "**Date/Time/Language**" in the "**System**" menu. (Page 59)

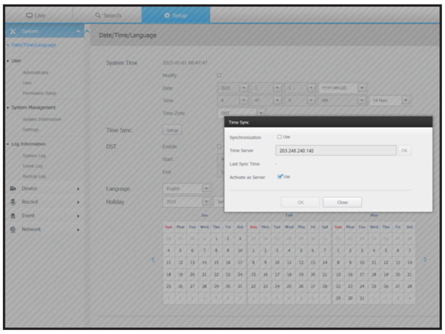
Date/Time

Set the date and time.



Time Synchronization Setup

Set the time synchronization.



DST (Daylight Saving Time)

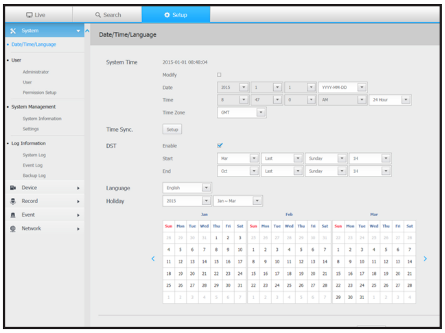
During the summer, Daylight Saving Time (DST) advances clocks one hour forwards from the standard local time zone.

Language

Select a preferred language for the NVR.

Holiday

A user can select specific dates as holidays according to their own preferences.



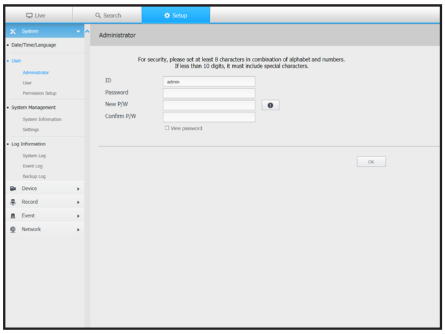
Permission Management

For more information, refer to "**User**" in the "**System Setup**" menu. (Page 61)

Admin

You can change the admin ID or the password.

- ID allows alphanumeric characters only.
- If the admin ID is not used for access, you cannot change the ID.
- If the ID being used is changed, you will be automatically logged out.

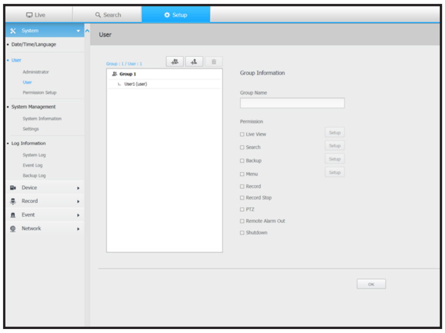

Live
Search
Setup
System
Date/Time/Language
User
Administrator
User
Permission Setup
System Management
System Information
Settings
Log Information
System Log
Event Log
Backup Log
Device
Record
Event
Network
Administrator
OK

For security, please set at least 8 characters in combination of alphabet and numbers.
If less than 10 digits, it must include special characters.

ID: admin
Password
New P/W
Confirm P/W
☐ View password

User

You can add, change or remove a user or users.

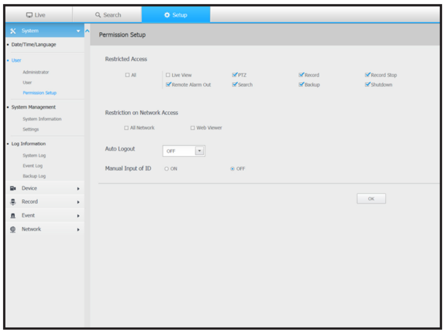

Live
Search
Setup
System
Date/Time/Language
User
Administrator
User
Permission Setup
System Management
System Information
Settings
Log Information
System Log
Event Log
Backup Log
Device
Record
Event
Network
User
Setup
Setup
Setup
Setup
OK

Group : 1 / User : 1
Group 1
User1 (user)

Group Information
Group Name
Permission
☐ Live View
☐ Search
☐ Backup
☐ Menu
☐ Record
☐ Record Stop
☐ PTZ
☐ Remote Alarm Out
☐ Shutdown

Permission Setup

You can set the user permission.


Live
Search
Setup
System
Date/Time/Language
User
Administrator
User
Permission Setup
System Management
System Information
Settings
Log Information
System Log
Event Log
Backup Log
Device
Record
Event
Network
Permission Setup
OK

Restricted Access
☐ All ☐ Live View ☑ PTZ ☑ Record ☑ Record Stop
☑ Remote Alarm Out ☑ Search ☑ Backup ☑ Shutdown

Restriction on Network Access
☐ All Network ☐ Web Viewer

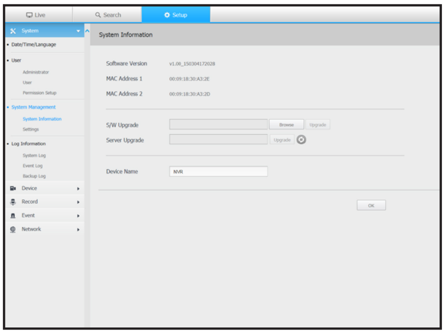
Auto Logout: OFF
Manual Input of ID: ○ ON ● OFF

System Management

For more information, refer to "**System Management**" in the "**System**" menu. (Page 65)

System Information

You can see information of the current system.
Check the software version and MAC address.

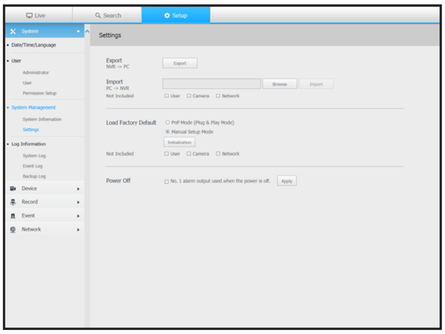

Live
Search
Setup
System
Date/Time/Language
User
Administrator
User
Permission Setup
System Management
System Information
Settings
Log Information
System Log
Event Log
Backup Log
Device
Record
Event
Network
System Information
Browse
Upgrade
OK

Software Version v1.00_150304172028
MAC Address 1 00:09:18:30:A3:2E
MAC Address 2 00:09:18:30:A3:2D
S/W Upgrade
Server Upgrade
Device Name NVR

Settings

Using a storage device, you can apply the current configuration of NVR to another NVR.

Press the Initialize button to return the network settings to their factory default state. Items in the <**Not Included**> category are excluded from the initialization.

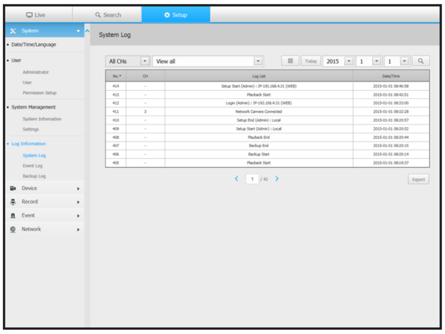

Live
Search
Setup
System
Date/Time/Language
User
Administrator
User
Permission Setup
System Management
System Information
Settings
Log Information
System Log
Event Log
Backup Log
Device
Record
Event
Network
Settings
Export
Browse
Import
Initialization
Apply

Export NVR -> PC
Import PC -> NVR
Not Included ☐ User ☐ Camera ☐ Network
Load Factory Default ○ PnP Mode (Plug & Play Mode) ● Manual Setup Mode
Not Included ☐ User ☐ Camera ☐ Network
Power Off ☐ No. 1 alarm output used when the power is off.

Log information

System log

Data recorded in the system log displays various system-related logs/date/time such as system starts, system ending and menu setting changes.


Live
Search
Setup
System
Date/Time/Language
User
Administrator
User
Permission Setup
System Management
System Information
Settings
Log Information
System Log
Event Log
Backup Log
Device
Record
Event
Network
System Log
Today
Export

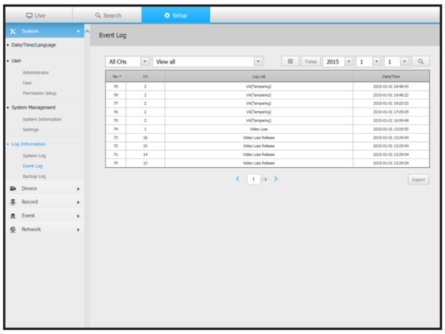
All CHs | View all | 2015 | 1 | 1

No.	CH	Log List	Date/Time
414	-	Setup Start (Admin) : IP-192.168.4.31 (WEB)	2015-01-01 08:46:58
413	-	Playback Start	2015-01-01 08:42:51
412	-	Login (Admin) : IP-192.168.4.31 (WEB)	2015-01-01 08:33:00
411	3	Network Camera Connected	2015-01-01 08:32:28
410	-	Setup End (Admin) : Local	2015-01-01 08:20:57
409	-	Setup Start (Admin) : Local	2015-01-01 08:20:52
408	-	Playback End	2015-01-01 08:20:44
407	-	Backup End	2015-01-01 08:20:15
406	-	Backup Start	2015-01-01 08:20:14
405	-	Playback Start	2015-01-01 08:19:37

1 / 42

Event log

The event log lists recorded events, such as sensor events, camera events, or image losses.


Live
Search
Setup
System
Date/Time/Language
User
Administrator
User
Permission Setup
System Management
System Information
Settings
Log Information
System Log
Event Log
Backup Log
Device
Record
Event
Network
All CHs
View all
Today
2015
1
1
Export

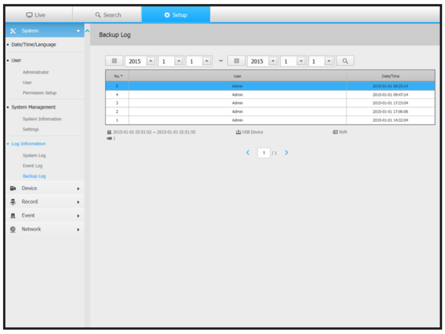
Event Log

No.	CH	Log List	Date/Time
79	2	VA(Tampering)	2015-01-01 19:48:43
78	2	VA(Tampering)	2015-01-01 19:48:22
77	2	VA(Tampering)	2015-01-01 19:25:53
76	2	VA(Tampering)	2015-01-01 17:29:29
75	2	VA(Tampering)	2015-01-01 16:59:49
74	1	Video Loss	2015-01-01 13:29:55
73	16	Video Loss Release	2015-01-01 13:29:54
72	15	Video Loss Release	2015-01-01 13:29:54
71	14	Video Loss Release	2015-01-01 13:29:54
70	13	Video Loss Release	2015-01-01 13:29:54

1 / 8

Backup log

You can inquire about a user who performed a backup, execution time, details (backup time, channel, backup device, backup file type).


Live
Search
Setup
System
Date/Time/Language
User
Administrator
User
Permission Setup
System Management
System Information
Settings
Log Information
System Log
Event Log
Backup Log
Device
Record
Event
Network
2015
1
1
~
2015
1
1

Backup Log

No.	User	Date/Time
5	Admin	2015-01-01 08:20:14
4	Admin	2015-01-01 09:47:14
3	Admin	2015-01-01 17:23:04
2	Admin	2015-01-01 17:06:06
1	Admin	2015-01-01 14:32:04

2015-01-01 02:51:52 ~ 2015-01-01 02:51:55 USB Device NVR
1

1 / 1

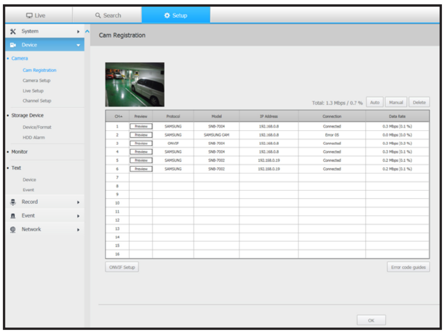
Device

You can check a list of devices that are connected to the NVR and configure the necessary settings.
Click <**Device**> in the menu screen.
For more information, refer to "**Setting the Device**". (Page 70)

Camera

Cam Registration

You can add a network camera(s).


Live
Search
Setup
System
Device
Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
Storage Device
Device/Format
HDD Alarm
Monitor
Text
Device
Event
Record
Event
Network
Auto
Manual
Delete
ONVIF Setup
Error code guides
OK

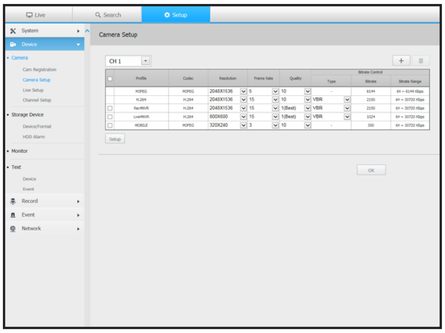
Cam Registration

Total: 1.3 Mbps / 0.7 %

CH	Preview	Protocol	Model	IP Address	Connection	Data Rate
1	Preview	SAMSUNG	SNB-7004	192.168.0.8	Connected	0.3 Mbps (0.1 %)
2	Preview	SAMSUNG	SAMSUNG CAM	192.168.0.8	Error 05	0.0 Mbps (0.0 %)
3	Preview	ONVIF	SNB-7004	192.168.0.8	Connected	0.3 Mbps (0.3 %)
4	Preview	SAMSUNG	SNB-7004	192.168.0.8	Connected	0.3 Mbps (0.1 %)
5	Preview	SAMSUNG	SNB-7002	192.158.0.19	Connected	0.2 Mbps (0.1 %)
6	Preview	SAMSUNG	SNB-7002	192.158.0.19	Connected	0.2 Mbps (0.1 %)
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

Camera Setup

You can change the settings of a connected network camera.


Live
Search
Setup
System
Device
Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
Storage Device
Device/Format
HDD Alarm
Monitor
Text
Device
Event
Record
Event
Network
Setup
OK

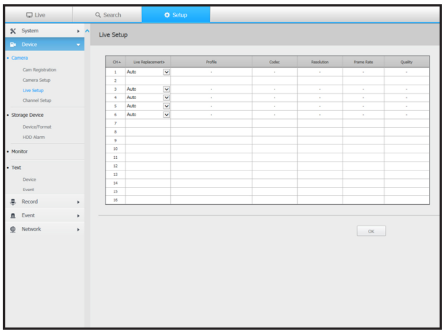
Camera Setup

CH 1

☐	Profile	Codec	Resolution	Frame Rate	Quality	Bitrate Control		
						Type	Bitrate	Bitrate Range
	MJPEG	MJPEG	2048X1536	5	10	-	6144	64 ~ 6144 Kbps
	H.264	H.264	2048X1536	15	10	VBR	2150	64 ~ 30720 Kbps
☐	Rec4NVR	H.264	2048X1536	15	1(Best)	VBR	2150	64 ~ 30720 Kbps
☐	Live4NVR	H.264	800X600	15	1(Best)	VBR	1024	64 ~ 30720 Kbps
☐	MOBILE	MJPEG	320X240	3	10	-	300	64 ~ 30720 Kbps

Live Setup

You can change the life transfer settings of the network camera.

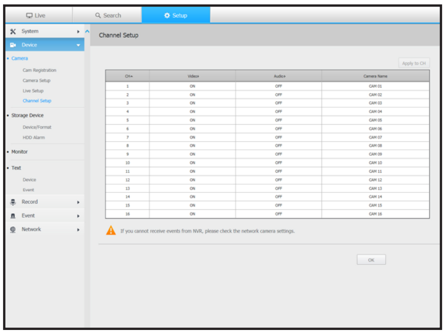

Live
Search
Setup
System
Device
Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
Storage Device
Device/Format
HDD Alarm
Monitor
Text
Device
Event
Record
Event
Network
OK

Live Setup

CH	Live Replacement	Profile	Codec	Resolution	Frame Rate	Quality
1	Auto	-	-	-	-	-
2						
3	Auto	-	-	-	-	-
4	Auto	-	-	-	-	-
5	Auto	-	-	-	-	-
6	Auto	-	-	-	-	-
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

Channel Setup

You can configure the video settings for each channel.


Live
Search
Setup
System
Device
Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
Storage Device
Device/Format
HDD Alarm
Monitor
Text
Device
Event
Record
Event
Network
Apply to CH
OK

Channel Setup

CH	Video	Audio	Camera Name
1	ON	OFF	CAM 01
2	ON	OFF	CAM 02
3	ON	OFF	CAM 03
4	ON	OFF	CAM 04
5	ON	OFF	CAM 05
6	ON	OFF	CAM 06
7	ON	OFF	CAM 07
8	ON	OFF	CAM 08
9	ON	OFF	CAM 09
10	ON	OFF	CAM 10
11	ON	OFF	CAM 11
12	ON	OFF	CAM 12
13	ON	OFF	CAM 13
14	ON	OFF	CAM 14
15	ON	OFF	CAM 15
16	ON	OFF	CAM 16

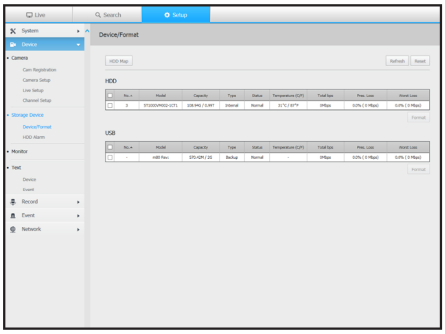
If you cannot receive events from NVR, please check the network camera settings.

Storage Device

You can check and change the settings related to the data storage device.

Device/format

You can check a storage device, amount of use, type of use and status of storage device.


Live
Search
Setup
System
Device
Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
Storage Device
Device/Format
HDD Alarm
Monitor
Text
Device
Event
Record
Event
Network
HDD Map
Refresh
Reset
Format
Format

Device/Format

HDD

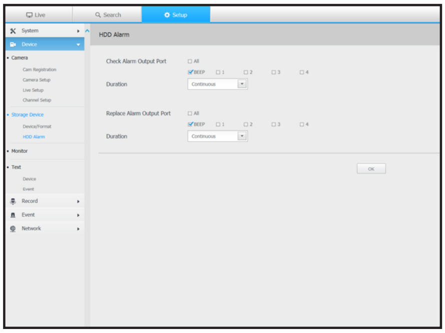
☐	No.	Model	Capacity	Type	Status	Temperature (C/F)	Total bps	Pres. Loss	Worst Loss
☐	3	ST1000VM002-1CT1	108.94G / 0.99T	Internal	Normal	31°C / 87°F	0Mbps	0.0% (0 Mbps)	0.0% (0 Mbps)

USB

☐	No.	Model	Capacity	Type	Status	Temperature (C/F)	Total bps	Pres. Loss	Worst Loss
☐	-	m80 Rev:	570.42M / 2G	Backup	Normal	-	0Mbps	0.0% (0 Mbps)	0.0% (0 Mbps)

HDD Alarm

You can set the alarm output port and the duration in case an error occurs.


Live
Search
Setup
System
Device
Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
Storage Device
Device/Format
HDD Alarm
Monitor
Text
Device
Event
Record
Event
Network
OK

HDD Alarm

Check Alarm Output Port ☐ All
☑ BEEP ☐ 1 ☐ 2 ☐ 3 ☐ 4
Duration Continuous

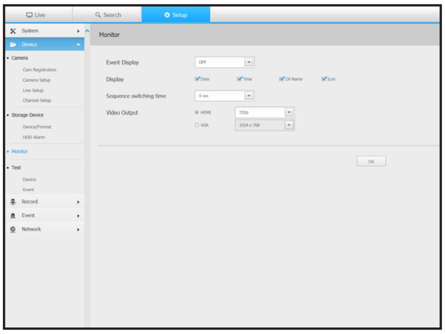
Replace Alarm Output Port ☐ All
☑ BEEP ☐ 1 ☐ 2 ☐ 3 ☐ 4
Duration Continuous

Monitor

Monitor

You can configure the monitoring screen settings and set the output system.

- If the video is not played properly, refer to the troubleshooting section later in this manual. (Page 166)
- The Monitor Setup settings control the monitor connected to the NVR.


Live
Search
Setup
System
Device
Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
Storage Device
Device/Format
HDD Alarm
Monitor
Text
Device
Event
Record
Event
Network
OK

Monitor

Event Display: OFF

Display: ☑ Date ☑ Time ☑ CH Name ☑ Icon

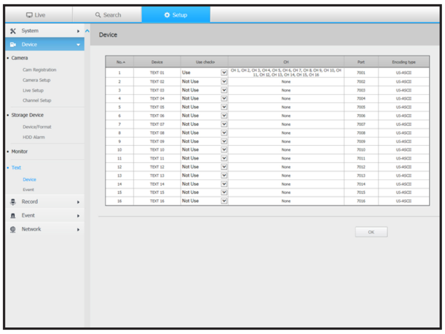
Sequence switching time: 5 sec

Video Output: ● HDMI 720p ○ VGA 1024 x 768

Text

Device

Relevant values of a device connected to NVR can be set.

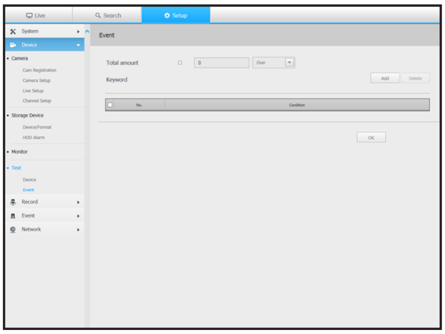

Live
Search
Setup
System
Device
Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
Storage Device
Device/Format
HDD Alarm
Monitor
Text
Device
Event
Record
Event
Network
OK

Device

No.▲	Device	Use check▸	CH	Port	Encoding type
1	TEXT 01	Use	CH 1, CH 2, CH 3, CH 4, CH 5, CH 6, CH 7, CH 8, CH 9, CH 10, CH 11, CH 12, CH 13, CH 14, CH 15, CH 16	7001	US-ASCII
2	TEXT 02	Not Use	None	7002	US-ASCII
3	TEXT 03	Not Use	None	7003	US-ASCII
4	TEXT 04	Not Use	None	7004	US-ASCII
5	TEXT 05	Not Use	None	7005	US-ASCII
6	TEXT 06	Not Use	None	7006	US-ASCII
7	TEXT 07	Not Use	None	7007	US-ASCII
8	TEXT 08	Not Use	None	7008	US-ASCII
9	TEXT 09	Not Use	None	7009	US-ASCII
10	TEXT 10	Not Use	None	7010	US-ASCII
11	TEXT 11	Not Use	None	7011	US-ASCII
12	TEXT 12	Not Use	None	7012	US-ASCII
13	TEXT 13	Not Use	None	7013	US-ASCII
14	TEXT 14	Not Use	None	7014	US-ASCII
15	TEXT 15	Not Use	None	7015	US-ASCII
16	TEXT 16	Not Use	None	7016	US-ASCII

Event

It is possible to set total amount conditions and keywords to display events of a text device.


Live
Search
Setup
System
Device
Camera
Cam Registration
Camera Setup
Live Setup
Channel Setup
Storage Device
Device/Format
HDD Alarm
Monitor
Text
Device
Event
Record
Event
Network
Add
Delete
OK

Event

Total amount: ☐ 0 Over

Keyword

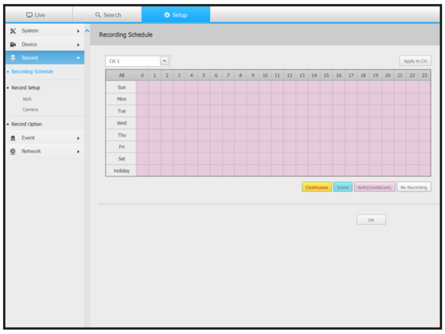
☐	No.	Condition

Record

For more information, refer to "**Setting the Recording**". (Page 89)

Recording Schedule

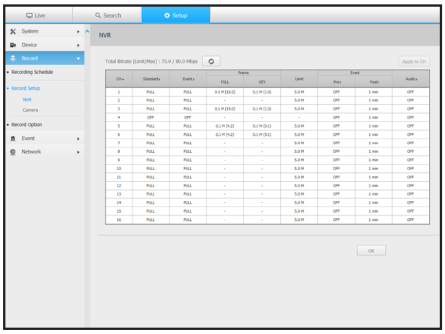
If you set a recording schedule for a specific date and time, the recording will start at that specific time.


Live
Search
Setup
System
Device
Record
Recording Schedule
Record Setup
NVR
Camera
Record Option
Event
Network
Recording Schedule
CH 1
Apply to CH
All
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Sun
Mon
Tue
Wed
Thu
Fri
Sat
Holiday
Continuous
Event
Both(Cont&Evnt)
No Recording
OK

Record Setup

NVR

Select a type of the normal/event recording frame rate for each channel.

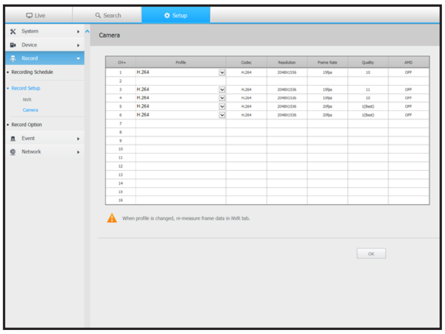

Live
Search
Setup
System
Device
Record
Recording Schedule
Record Setup
NVR
Camera
Record Option
Event
Network
NVR
Apply to CH
OK

Total Bitrate (Limit/Max) : 75.0 / 80.0 Mbps

CH	Standard	Event	Frame		Limit	Event		Audio
			FULL	KEY		Pre	Post	
1	FULL	FULL	0.1 M (15.0)	0.1 M (1.0)	5.0 M	OFF	1 min	OFF
2	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF
3	FULL	FULL	0.1 M (15.0)	0.1 M (1.0)	5.0 M	OFF	1 min	OFF
4	OFF	OFF	-	-	-	OFF	1 min	OFF
5	FULL	FULL	0.1 M (4.2)	0.1 M (0.1)	5.0 M	OFF	1 min	OFF
6	FULL	FULL	0.1 M (4.2)	0.1 M (0.1)	5.0 M	OFF	1 min	OFF
7	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF
8	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF
9	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF
10	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF
11	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF
12	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF
13	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF
14	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF
15	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF
16	FULL	FULL	-	-	5.0 M	OFF	1 min	OFF

Camera

You can set the recording profile for a network camera.


Live
Search
Setup
System
Device
Record
Recording Schedule
Record Setup
NVR
Camera
Record Option
Event
Network
OK

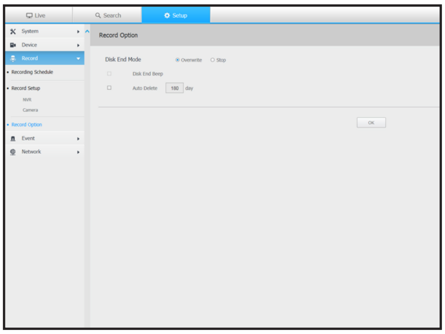
Camera

CH	Profile	Codec	Resolution	Frame Rate	Quality	AMD
1	H.264	H.264	2048X1536	15fps	10	OFF
2						
3	H.264	H.264	2048X1536	15fps	11	OFF
4	H.264	H.264	2048X1536	15fps	10	OFF
5	H.264	H.264	2048X1536	20fps	1(Best)	OFF
6	H.264	H.264	2048X1536	20fps	1(Best)	OFF
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

When profile is changed, re-measure frame data in NVR tab.

Record Option

You can set the Disk End Mode.


Live
Search
Setup
System
Device
Record
Recording Schedule
Record Setup
NVR
Camera
Record Option
Event
Network
OK

Record Option

Disk End Mode ● Overwrite ○ Stop

☐ Disk End Beep

☐ Auto Delete 180 day

Event

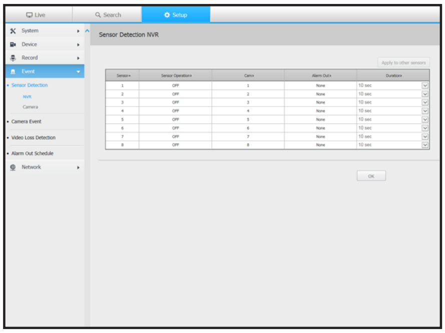
For more information, refer to "**Setting the Event**". (Page 93)

Sensor Detection

NVR / Camera

You can set the sensor operation mode and the synchronized camera as well as the alarm output type and the duration.

- If the connected network camera that has configured the alarm in/out settings triggers an alarm, NVR will perform the alarm out.

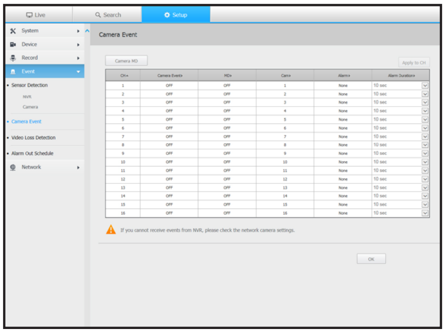

Live
Search
Setup
System
Device
Record
Event
Sensor Detection
NVR
Camera
Camera Event
Video Loss Detection
Alarm Out Schedule
Network
Apply to other sensors
OK

Sensor Detection NVR

Sensor	Sensor Operation	Cam	Alarm Out	Duration
1	OFF	1	None	10 sec
2	OFF	2	None	10 sec
3	OFF	3	None	10 sec
4	OFF	4	None	10 sec
5	OFF	5	None	10 sec
6	OFF	6	None	10 sec
7	OFF	7	None	10 sec
8	OFF	8	None	10 sec

Camera Event

You can set the camera event mode, the alarm output type and the alarm time.


Live
Search
Setup
System
Device
Record
Event
Sensor Detection
NVR
Camera
Camera Event
Video Loss Detection
Alarm Out Schedule
Network
Camera MD
Apply to CH
OK

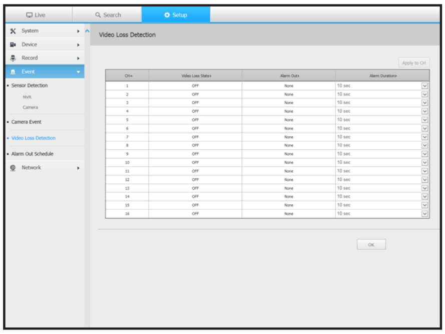
Camera Event

CH	Camera Event	MD	Cam	Alarm	Alarm Duration
1	OFF	OFF	1	None	10 sec
2	OFF	OFF	2	None	10 sec
3	OFF	OFF	3	None	10 sec
4	OFF	OFF	4	None	10 sec
5	OFF	OFF	5	None	10 sec
6	OFF	OFF	6	None	10 sec
7	OFF	OFF	7	None	10 sec
8	OFF	OFF	8	None	10 sec
9	OFF	OFF	9	None	10 sec
10	OFF	OFF	10	None	10 sec
11	OFF	OFF	11	None	10 sec
12	OFF	OFF	12	None	10 sec
13	OFF	OFF	13	None	10 sec
14	OFF	OFF	14	None	10 sec
15	OFF	OFF	15	None	10 sec
16	OFF	OFF	16	None	10 sec

If you cannot receive events from NVR, please check the network camera settings.

Video Loss Detection

You can set to trigger the alarm if a video loss occurs.

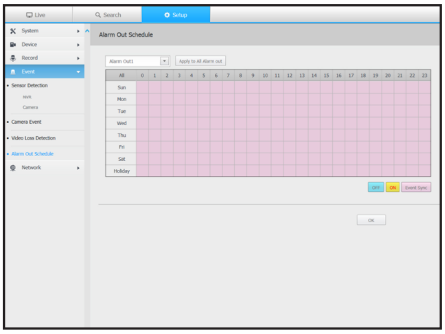

Live
Search
Setup
System
Device
Record
Event
Sensor Detection
NVR
Camera
Camera Event
Video Loss Detection
Alarm Out Schedule
Network
Apply to CH
OK

Video Loss Detection

CH	Video Loss State	Alarm Out	Alarm Duration
1	OFF	None	10 sec
2	OFF	None	10 sec
3	OFF	None	10 sec
4	OFF	None	10 sec
5	OFF	None	10 sec
6	OFF	None	10 sec
7	OFF	None	10 sec
8	OFF	None	10 sec
9	OFF	None	10 sec
10	OFF	None	10 sec
11	OFF	None	10 sec
12	OFF	None	10 sec
13	OFF	None	10 sec
14	OFF	None	10 sec
15	OFF	None	10 sec
16	OFF	None	10 sec

Alarm Out Schedule

You can schedule the alarm output according to the day of the week and the time.
The default setting is Event Sync, which activates the alarm only if an event occurs.


Live
Search
Setup
System
Device
Record
Event
Sensor Detection
NVR
Camera
Camera Event
Video Loss Detection
Alarm Out Schedule
Network
Apply to All Alarm out
All
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Sun
Mon
Tue
Wed
Thu
Fri
Sat
Holiday
OFF
ON
Event Sync
OK

Alarm Out Schedule

Alarm Out1

Network

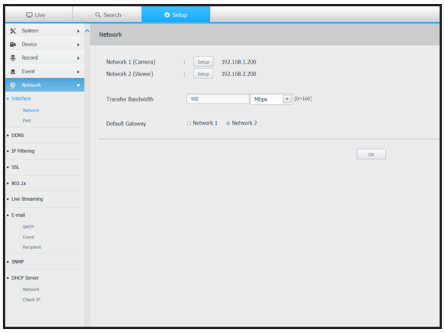
For more information, refer to "**Network Configuration**". (Page 97)

Interface

A remote user can access the NVR via the network to check the current mode and the IP address.

Network

Specify the network connection path.

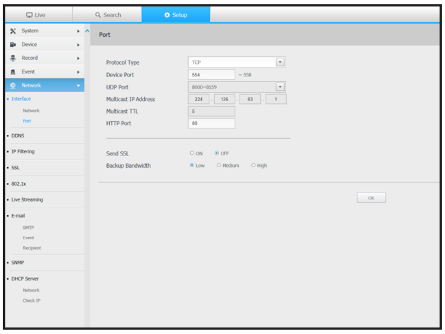

Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
Setup
Setup
OK

Network

Network 1 (Camera) : 192.168.1.200
Network 2 (Viewer) : 192.168.2.200
Transfer Bandwidth 160 Mbps (0~160)
Default Gateway ○ Network 1 ● Network 2

Port

You can configure the protocol related settings.


Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
OK

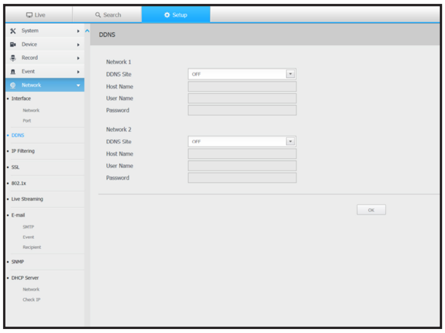
Port

Protocol Type TCP
Device Port 554 ~ 558
UDP Port 8000~8159
Multicast IP Address 224 . 126 . 63 . 1
Multicast TTL 5
HTTP Port 80
Send SSL ○ ON ● OFF
Backup Bandwidth ● Low ○ Medium ○ High

DDNS

Network

You can check the DDNS settings.


Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
OK

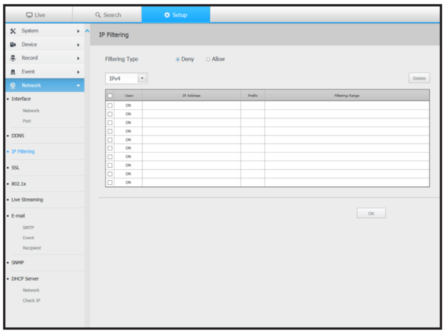
DDNS

Network 1
DDNS Site: OFF
Host Name
User Name
Password

Network 2
DDNS Site: OFF
Host Name
User Name
Password

IP Filtering

You can prepare the list of IP address to allow or block accesses to a specific IP address.


Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
Delete
OK

IP Filtering

Filtering Type ● Deny ○ Allow

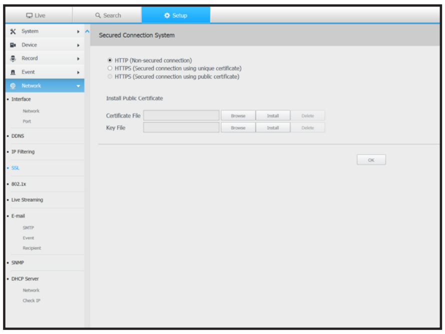
IPv4

☐	Use	IP Address	Prefix	Filtering Range
☐	ON			
☐	ON			
☐	ON			
☐	ON			
☐	ON			
☐	ON			
☐	ON			
☐	ON			
☐	ON			
☐	ON			

SSL

You can select a security connection system or install public certificates.

- While using HTTPS, if you want to switch to HTTP, then abnormal operation can take place as the browser contains the setting values. You need to change the URL to HTTP and reconnect or initialize the cookie setting of the browser.


Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
Browse
Install
Delete
Browse
Install
Delete
OK

Secured Connection System

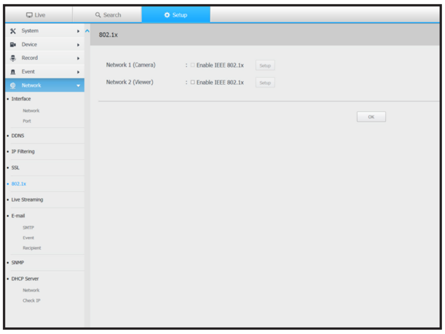
● HTTP (Non-secured connection)
○ HTTPS (Secured connection using unique certificate)
○ HTTPS (Secured connection using public certificate)

Install Public Certificate

Certificate File
Key File

802.1x

When connecting to a network, you can select whether to use the 802.1x protocol and install corresponding certificate.


Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
Setup
OK

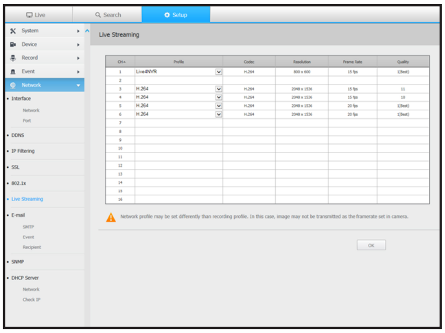
802.1x

Network 1 (Camera) : ☐ Enable IEEE 802.1x

Network 2 (Viewer) : ☐ Enable IEEE 802.1x

Live Streaming

You can configure the network transfer settings of the network camera.


Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
OK

Live Streaming

CH	Profile	Codec	Resolution	Frame Rate	Quality
1	Live4NVR	H.264	800 x 600	15 fps	1(Best)
2					
3	H.264	H.264	2048 x 1536	15 fps	11
4	H.264	H.264	2048 x 1536	15 fps	10
5	H.264	H.264	2048 x 1536	20 fps	1(Best)
6	H.264	H.264	2048 x 1536	20 fps	1(Best)
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

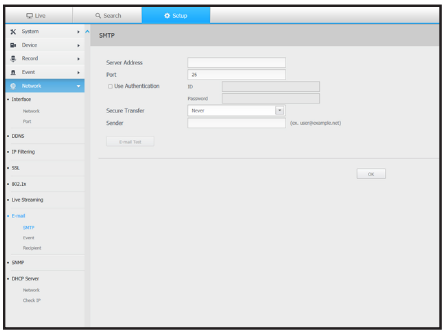
Network profile may be set differently than recording profile. In this case, image may not be transmitted as the framerate set in camera.

E-mail

You can specify the SMTP server that sends a mail if an event occurs and set the recipient group and users.

SMTP

You can set the server that sends mails and specify if you use the authentication process.


Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
E-mail Test
OK

SMTP

Server Address

Port 25

☐ Use Authentication ID

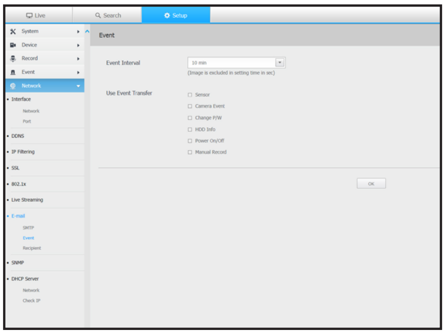
Password

Secure Transfer Never

Sender (ex. user@example.net)

Event

You can set the event interval and specify which events the server sends mails for.

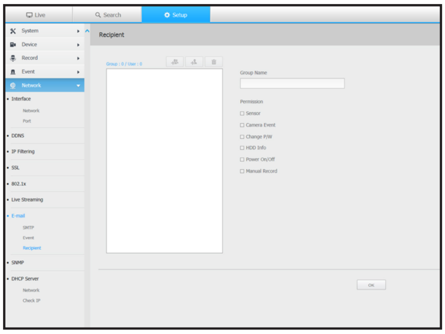

Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
Event
OK

Event Interval: 10 min
(Image is excluded in setting time in sec)

Use Event Transfer
☐ Sensor
☐ Camera Event
☐ Change P/W
☐ HDD Info
☐ Power On/Off
☐ Manual Record

Recipient

You can set groups and recipients to receive emails.


Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
Recipient
OK

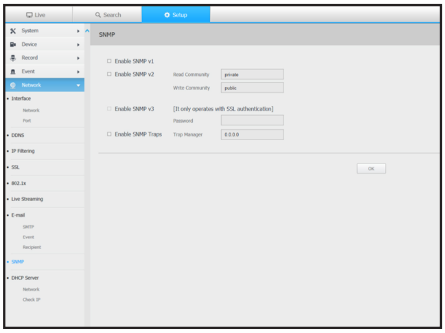
Group : 0 / User : 0

Group Name

Permission
☐ Sensor
☐ Camera Event
☐ Change P/W
☐ HDD Info
☐ Power On/Off
☐ Manual Record

SNMP

Using the SNMP protocol, the system or network administrator can remotely monitoring the network devices and sets the environment.

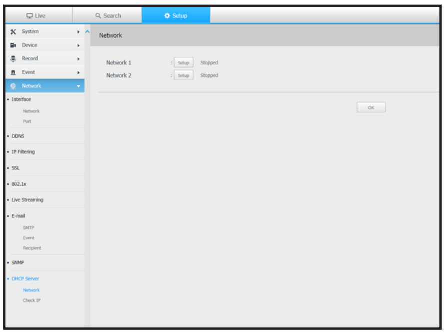

Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
SNMP
OK

☐ Enable SNMP v1
☐ Enable SNMP v2 Read Community: private
Write Community: public
☐ Enable SNMP v3 [It only operates with SSL authentication]
Password:
☐ Enable SNMP Traps Trap Manager: 0.0.0.0

DHCP Server

Network

You can set the internal DHCP server and assign an IP address to the network camera.


Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP
Setup
Setup
OK

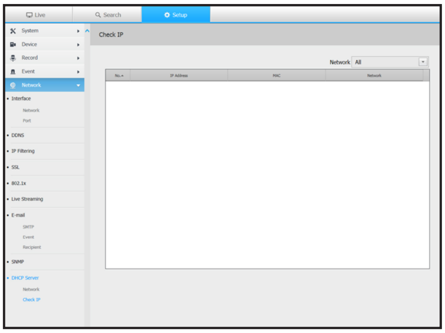
Network

Network 1 : Stopped

Network 2 : Stopped

Check IP

You can check the IP and MAC currently used through the DHCP server, and the connected network port.

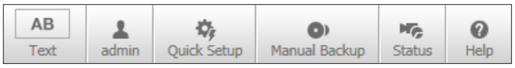

Live
Search
Setup
System
Device
Record
Event
Network
Interface
Network
Port
DDNS
IP Filtering
SSL
802.1x
Live Streaming
E-mail
SMTP
Event
Recipient
SNMP
DHCP Server
Network
Check IP

Check IP

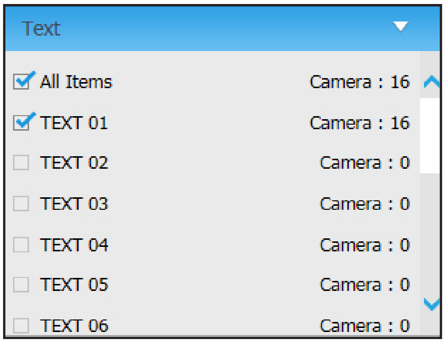
Network All

No.	IP Address	MAC	Network

Using the setting icons

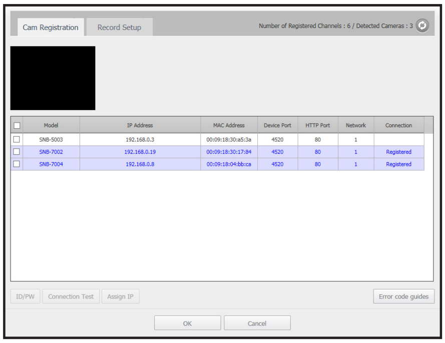

AB
Text
admin
Quick Setup
Manual Backup
Status
Help

- AB Text : If the button is selected, you can turn on/off the function to query text devices and data that are located in a separate area.
- admin : Display the ID of user connected.



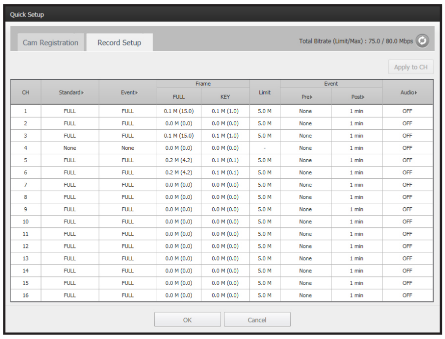
☑	All Items	Camera : 16
☑	TEXT 01	Camera : 16
☐	TEXT 02	Camera : 0
☐	TEXT 03	Camera : 0
☐	TEXT 04	Camera : 0
☐	TEXT 05	Camera : 0
☐	TEXT 06	Camera : 0

- Quick Setup : You can register a network camera for each channel and easily set the resolution and the number of shots in case of event occurrence or manaual recording.
  - For more on how to register a camera, refer to "**To register a camera**". (Page 70)


Cam Registration
Record Setup
ID/PW
Connection Test
Assign IP
Error code guides
OK
Cancel

Number of Registered Channels : 6 / Detected Cameras : 3

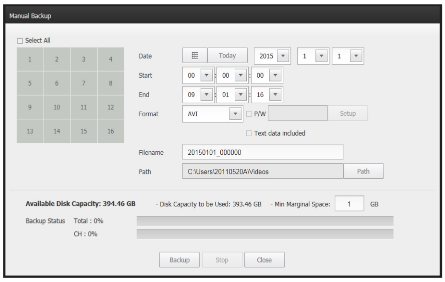
☐	Model	IP Address	MAC Address	Device Port	HTTP Port	Network	Connection
☐	SNB-5003	192.168.0.3	00:09:18:30:a5:3a	4520	80	1	
☐	SNB-7002	192.168.0.19	00:09:18:30:17:84	4520	80	1	Registered
☐	SNB-7004	192.168.0.8	00:09:18:04:bb:ca	4520	80	1	Registered


Quick Setup
Cam Registration
Record Setup
Apply to CH
OK
Cancel

Total Bitrate (Limit/Max) : 75.0 / 80.0 Mbps

CH	Standard	Event	Frame		Limit	Event		Audio
			FULL	KEY		Pre	Post	
1	FULL	FULL	0.1 M (15.0)	0.1 M (1.0)	5.0 M	None	1 min	OFF
2	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF
3	FULL	FULL	0.1 M (15.0)	0.1 M (1.0)	5.0 M	None	1 min	OFF
4	None	None	0.0 M (0.0)	0.0 M (0.0)	-	None	1 min	OFF
5	FULL	FULL	0.2 M (4.2)	0.1 M (0.1)	5.0 M	None	1 min	OFF
6	FULL	FULL	0.2 M (4.2)	0.1 M (0.1)	5.0 M	None	1 min	OFF
7	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF
8	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF
9	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF
10	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF
11	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF
12	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF
13	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF
14	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF
15	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF
16	FULL	FULL	0.0 M (0.0)	0.0 M (0.0)	5.0 M	None	1 min	OFF

- Manual Backup : You can manually enter the desired backup channel and time/date to backup the recorded video.
  - You can select whether or not to "**Text data included**" for SEC format.


Manual Backup
Today
Setup
Path
Backup
Stop
Close

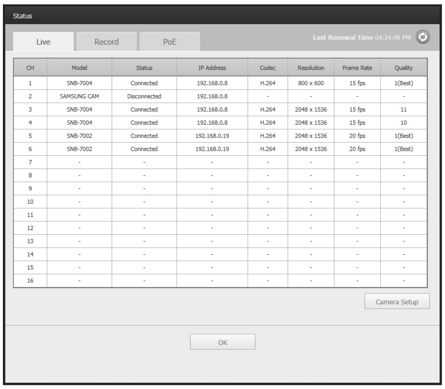
☐ Select All

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

Date 2015 1 1
Start 00 : 00 : 00
End 09 : 01 : 16
Format AVI ☐ P/W
☐ Text data included
Filename 20150101_000000
Path C:\Users\20110520A\Videos

Available Disk Capacity: 394.46 GB - Disk Capacity to be Used: 393.46 GB - Min Marginal Space: 1 GB
Backup Status Total : 0%
CH : 0%

- Status : You can check the recording status and the status of camera connected.
  - Live : Select <**Live**> to check the status of camera connected to each channel and the transmission information.



Status

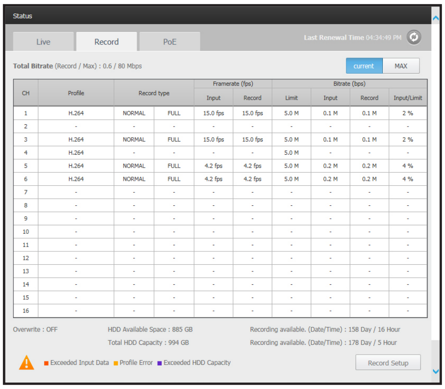
Live
Record
PoE

Last Renewal Time 04:34:49 PM

CH	Model	Status	IP Address	Codec	Resolution	Frame Rate	Quality
1	SNB-7004	Connected	192.168.0.8	H.264	800 x 600	15 fps	1(Best)
2	SAMSUNG CAM	Disconnected	192.168.0.8	-	-	-	-
3	SNB-7004	Connected	192.168.0.8	H.264	2048 x 1536	15 fps	11
4	SNB-7004	Connected	192.168.0.8	H.264	2048 x 1536	15 fps	10
5	SNB-7002	Connected	192.168.0.19	H.264	2048 x 1536	20 fps	1(Best)
6	SNB-7002	Connected	192.168.0.19	H.264	2048 x 1536	20 fps	1(Best)
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-

Camera Setup
OK

  - Recording : Select <**Record**> to check the following for each channel : profile, recording type, inputs / recording transmission rate, settings / inputs / amount of recorded data.



Status

Live
Record
PoE

Last Renewal Time 04:34:49 PM

Total Bitrate (Record / Max) : 0.6 / 80 Mbps

current
MAX

CH	Profile	Record type		Framerate (fps)		Bitrate (bps)			
				Input	Record	Limit	Input	Record	Input/Limit
1	H.264	NORMAL	FULL	15.0 fps	15.0 fps	5.0 M	0.1 M	0.1 M	2 %
2	-	-	-	-	-	-	-	-	-
3	H.264	NORMAL	FULL	15.0 fps	15.0 fps	5.0 M	0.1 M	0.1 M	2 %
4	H.264	-	-	-	-	5.0 M	-	-	-
5	H.264	NORMAL	FULL	4.2 fps	4.2 fps	5.0 M	0.2 M	0.2 M	4 %
6	H.264	NORMAL	FULL	4.2 fps	4.2 fps	5.0 M	0.2 M	0.2 M	4 %
7	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-

Overwrite : OFF

HDD Available Space : 885 GB

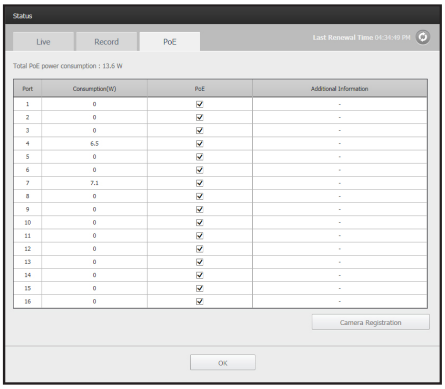
Total HDD Capacity : 994 GB

Recording available. (Date/Time) : 158 Day / 16 Hour

Recording available. (Date/Time) : 178 Day / 5 Hour

■ Exceeded Input Data ■ Profile Error ■ Exceeded HDD Capacity
Record Setup

  - PoE : Select <**PoE**> to check the consumption by PoE connected to each channel.
    - Click on < Camera Registration > to move to Device > Camera > Camera Registration.
      For more on camera registration, refer to "**To register a camera**". (Page 70)



Status

Live
Record
PoE

Last Renewal Time 04:34:49 PM

Total PoE power consumption : 13.6 W

Port	Consumption(W)	PoE	Additional Information
1	0	☑	-
2	0	☑	-
3	0	☑	-
4	6.5	☑	-
5	0	☑	-
6	0	☑	-
7	7.1	☑	-
8	0	☑	-
9	0	☑	-
10	0	☑	-
11	0	☑	-
12	0	☑	-
13	0	☑	-
14	0	☑	-
15	0	☑	-
16	0	☑	-

Camera Registration
OK

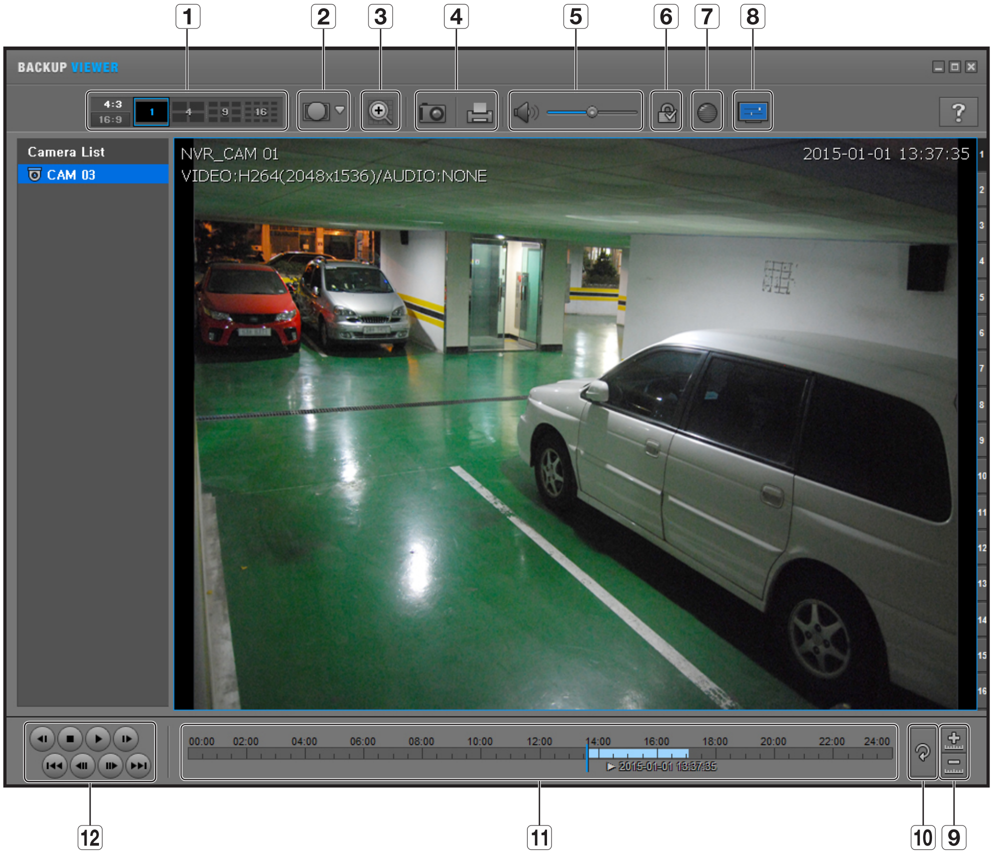
- < Help > : You will be immediately directed to the homepage of Samsung Techwin. (http ://www.samsungcctv.com/).

SAMSUNG TECHWIN
YOUR SMART SECURITY SOLUTION

backup viewer

SEC BACKUP VIEWER

You can play a file that is backed up in the format of SEC.
Backup in SEC format produces backup data file, library file and self-executable viewer file.
If you run the backup file viewer, the backup data file will be played.


1
2
3
4
5
6
7
8
BACKUP VIEWER
4:3
16:9
1
4
9
16
?
Camera List
CAM 03
NVR_CAM 01
VIDEO:H264(2048x1536)/AUDIO:NONE
2015-01-01 13:37:35
00:00
02:00
04:00
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
24:00
▷ 2015-01-01 13:37:35
12
11
10
9

Recommended System Requirements

PCs with a lower specification than the recommended below may not fully support forward/backward and high-speed playback.

- OS : Windows XP professional, Windows Vista, Windows 7
- CPU : Intel Core 2 Quad 2.5GHz or higher
- RAM : 3GB or more
- VGA : Geforce 6200 or higher

Item			Description
1	**Split screen**	4:3 16:9	Selects screen ratio to display.
		1 4 9 16	The screen is changed to a split screen.
2	**Fish eye view mode**	WALL GROUND CEILING	If < ◙▾ > is pushed, it is possible to change to a fish eye installation type. It is possible to select WALL/GROUND/CEILING mode according to the installation place.
			It is possible to change the fish eye view mode of the current screen according to each split screen.
3	**Digital Zoom**	🔍	Enlarge the image by up to 100 times as big as the current one. Press the Zoom In (🔍) button the enlarge the image; press the Zoom Out (🔍) button to shrink the image. You can also use the slide bar ( ) in the pop-up window to zoom in/out. Press (🔍) on a size-changed video to restore the default zoom factor (100%). If you enlarge the image by more than 200%, the enlarged area will be marked on the digital zooming screen. Click on the marked area and move it to a desired position. The digital zooming is applied to all backup viewer. When the digital zooming is canceled, the video size will restore the default rate of 100%.
4	**Screen Printout**	📷	Saves the current video's image as in an image file. Supports JPEG file format.
		🖶	Prints out the current screen. You should have installed the appropriate printer driver before you can print out the screen.
5	**Audio**	🔊 / 🔈	A toggle button. Each time you press this button, the audio output will toggle between activated and deactivated.
			You can adjust the volume level from 0 to 100.
6	**Watermark**	🔒 / 🔒	Press the button to enable file tampering detection, to detect data file forging.
7	**Deinterlace**	●	You can enable the De-interlace function.
8	**Show OSD**		Check the OSD checkbox to display the OSD information on the backup playback screen. Information such as backup date, day of the week, time, model name, and channel number will be displayed on the screen.
9	**Enlarge / Reduce Timeline**	−	Collapses the time range that is displayed on the range bar of the storage time. You can collapse the range bar until the overall range is shortened to 24 hours.
		+	Enlarges the time range that is displayed on the range bar of the storage time. You can enlarge the range bar until the overall range is extended to 1 minute.
10	**Restore Timeline**	↻	Restores the timeline to the default.
11	**Display of storage time range**		Displays the time range of a stored video file. You can move the gridline of the range bar to select a time point to play.
12	**Playback Control**	◀II ■ ▶ II▶ I◀◀ ◀II II▶ ▶▶I	You can adjust the video playback of the timeline.

PRODUCT SPECIFICATION

Item		Details		
		SRN-473S	SRN-873S	SRN-1673S
Display				
Network Camera	Inputs	Max. 4CH	Max. 8CH	Max. 16CH
	Resolution	CIF ~ 8MP		
	Protocols	Samsung, ONVIF		
Live	Local Display	HDMI/VGA		
	Multi-Channel Display	• SRN-473S [Local Monitor] : 1 / 4 / Auto Sequence [Web] : 1 / 4 / Auto Sequence • SRN-873S [Local Monitor] : 1 / 4 / 6 / 8 / Auto Sequence [Web] : 1 / 4 / 8 / Auto Sequence • SRN-1673S [Local Monitor] : 1 / 4 / 6 / 8 / 9 / 13 / 16 / Auto Sequence [Web] : 1 / 4 / 9 / 16 / Auto Sequence		
	Performance	• SRN-473S [Local Monitor] : 8MP(20fps), 5MP(30fps), 3MP(50fps), 2MP(120fps), 720p(120fps), D1(120fps) [Web] : 5MP(30fps), 3MP(60fps), 2MP(120fps), 720p(120fps), D1(120fps) • SRN-873S [Local Monitor] : 8MP(20fps), 5MP(30fps), 3MP(50fps), 2MP(150fps), 720p(240fps), D1(240fps) [Web] : 5MP(30fps), 3MP(60fps), 2MP(120fps), 720p(240fps), D1(480fps) • SRN-1673S [Local Monitor] : 8MP(20fps), 5MP(30fps), 3MP(50fps), 2MP(150fps), 720p(240fps), D1(480fps) [Web] : 5MP(30fps), 3MP(60fps), 2MP(120fps), 720p(240fps), D1(480fps)		

Item		Details		
		SRN-473S	SRN-873S	SRN-1673S
Performance				
Operating System	Embedded	Linux		
Record	Compression	H.264, MJPEG		
	Recording Bandwidth	32Mbps, 2MP 4camera real-time recording	64Mbps, 2MP 8camera real-time recording	80Mbps, 2MP 16camera real-time recording
	Resolution	CIF ~ 8MP		
	Type	Normal, Scheduled, Event (Pre/Post)		
	Event Trigger	- Alarm Input(2) - Video Loss - Camera Event (Alarm-In, MD, Video Analytics)	- Alarm Input(4) - Video Loss - Camera Event (Alarm-In, MD, Video Analytics)	- Alarm Input(8) - Video Loss - Camera Event (Alarm-In, MD, Video Analytics)
	Event Action	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out		
Search & Play	Playback Bandwidth	32Mbps		
	Performance	Max. 3 Users		
	Mode	Date & Time(Calendar), Event Log list, Text Search(POS)		

Item		Details		
		SRN-473S	SRN-873S	SRN-1673S
Search & Play	Simultaneous playback	[Local Monitor] : Up to 4CH [Web, CMS] : Up to 4CH	[Local Monitor] : Up to 8CH [Web, CMS] : Up to 8CH	[Local Monitor] : Up to 16CH [Web, CMS] : Up to 16CH
	Resolution	CIF ~ 8MP		
	Fish-Eye Dewarping	Via Smartviewer		
	Playback Control	Fast/Slow Forward/Backward, Move one step up/down		
Storage	Internal	1 SATA	2 SATA	4 SATA (HDD removable at front)
	External(DAS)	N/A	1 e-SATA	
	Max.Capacity	Internal 4TB	Internal 8TB	Internal 16TB
Backup	File backup	BU/EXE(USB), JPG/AVI(Web, CMS)		
	Function	Max. 4CH Playback, Date-Time/Title display	Max. 8CH Playback, Date-Time/Title display	Max. 16CH Playback, Date-Time/Title display
Sensor	I/O	2/1 (NO/NC 1EA)	4/3 (NO 2EA, NO/NC 1EA)	8/4 (NO 3EA, NO/NC 1EA)
Audio	Input	4CH (network)	8CH (network)	16CH (network)
	Compression	G.711, G.726, AAC(16/48KHz)		
	Audio Communication	2-Way		

Item		Details		
		SRN-473S	SRN-873S	SRN-1673S
Network				
Protocol		TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, DHCP(Server, Client), PPPoE, SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, ONVIF Profile S		
DDNS		Samsung iPolis DDNS		
Transmission Bandwidth		Max. 64Mbps	Max. 128Mbps	Max. 160Mbps
Max Remote Users		Search(3) / Live unicast(10) / Live multicast(20)		
IP Version		IPv4/v6		
Security		User access Log IP Filtering 802.1x Encryption		
Language	GUI	English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese, Japanese, Thai		
	Web	English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese, Japanese, Thai		
OS		Supported OS : Window XP(service pack 2 or above), Vista, 7, 8, Mac OS X(10.6 or above)		
Web Browser		Microsoft Internet Explorer (Updated Ver. 8~10, IE 9 or above recommended), Mozilla Firefox (Ver. 19.x or above), Google Chrome (Ver. 26.x or above), Apple Safari (Ver. 6.0.3 or above)		
Viewer Software	Type	SSM, Webviewer, Smart Viewer, iPolis Mobile Viewer		
	CMS Support	Support SDK/CGI(SUNAPI)		

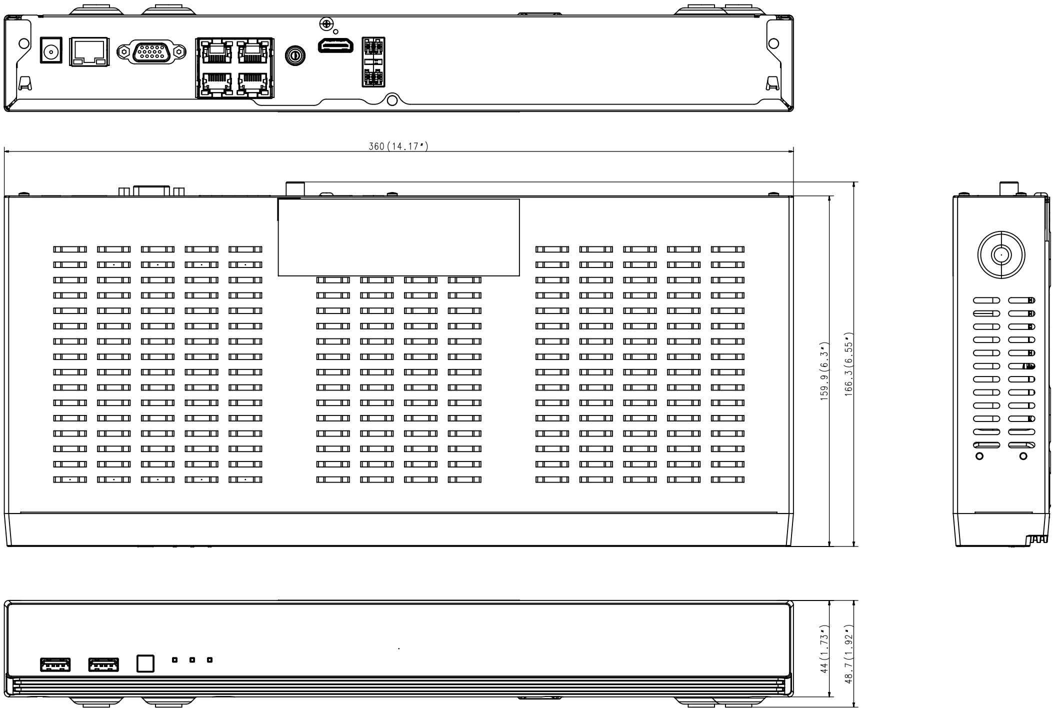
Item		Details		
		SRN-473S	SRN-873S	SRN-1673S
Functions				
Camera Setup	Register	PnP mode, Manual mode		
	Setup Items	IP Address, Add Profile Edit, Bitrate, Compression, GOP, Quality Camera MD Setup Video Setup(Simple Focus, Brightness/Contrast, Flip/Mirror, IRIS, WDR, D&N, SSNR, Shutter, SSDR, DIS)		
Camera Power Control	PoE	Monitor PoE Power consumption On/Off Control for each PoE camera Remote Reset for each PoE camera		
Easy Configuration		Setup Wizard (Date/Time, Network, Auto Camera Configuration)		
PTZ	Control	Via GUI, Webviewer, SPC-2000		
	Preset	255		
Smart phone	OS	Android / iOS		
	Control	Live(4CH) / Playback(1CH)		
System Control	Control Applications	Mouse, IR Remocon, Web, SPC-2000(Controller)		
Indicator/Interface				
Front	Indicator	Power Status LED 1EA Alarm Status LED 1EA Record Status LED 1EA	Power Status LED 1EA HDD Action LED 1EA Alarm Status LED 1EA Record Status LED 1EA Network Action LED 1EA Backup LED 1EA	
	USB	2EA (Front 2EA)		2EA (Front 1EA, Rear 1EA)

Item		Details		
		SRN-473S	SRN-873S	SRN-1673S
Connectors	VGA	1EA		
	HDMI	1EA		
	Audio	Out(1 EA, RCA, Line)		
	Ethernet	RJ-45 4EA (PoE/PoE+, 100Mbps), RJ-45 1EA (WAN, 100Mbps)	RJ-45 8EA (PoE/PoE+, 100Mbps), RJ-45 1EA (WAN, 1Gbps)	RJ-45 16EA (PoE/PoE+, 100Mbps), RJ-45 2EA (LAN/WAN, 1Gbps)
	Alarm	In(2EA, Terminal Block) Out(1EA, Terminal Block)	In(4EA, Terminal Block) Out(3EA, Terminal Block)	In(8EA, Terminal Block) Out(4EA, Terminal Block)
	Reset	Yes (Factory Reset)		Yes (Factory Reset, Alarm Reset)
System				
Log	Log List	Max. 20,000 (System Log, Event Log each)		
Environmental				
Operating Temperature / Humidity		+0°C to +40°C (32°F ~ 104°F)		
Humidity		20% ~ 85%		
Electrical				
Power Input		54V DC / 1.67A	AC 100-240V ~ 50/60Hz 3-1.5A	AC 100-240V ~ 50/60Hz 6-3A
Power Consumption		Max. 77W (1 HDD, PoE on), 16W(1 HDD, PoE off)	Max. 166W (2 HDD, PoE on), 44W(2 HDD, PoE off)	Max. 309W (4 HDD, PoE on), 57W(4 HDD, PoE off)
PoE Budget		Max. 50W	Max. 100W	Max. 200W
Mechanical				
Color / Material		Black / Metal		
Dimension (WxHxD)		360 x 44 x 159.9mm (14.17" x 1.73" x 6.3") (1U)	370 x 44 x 320mm (14.57" x 1.73" x 12.6") (1U)	440 x 88 x 384.8mm (17.32" x 3.46" x 15.15") (2U)
Weight		Approx. 1.54kg (3.4lb), (1TB HDD 1EA included)	Approx. 3.1kg (6.83lb), (1TB HDD 1EA included)	Approx. 5.43kg (11.98lb), (1TB HDD 1EA included)

PRODUCT OVERVIEW

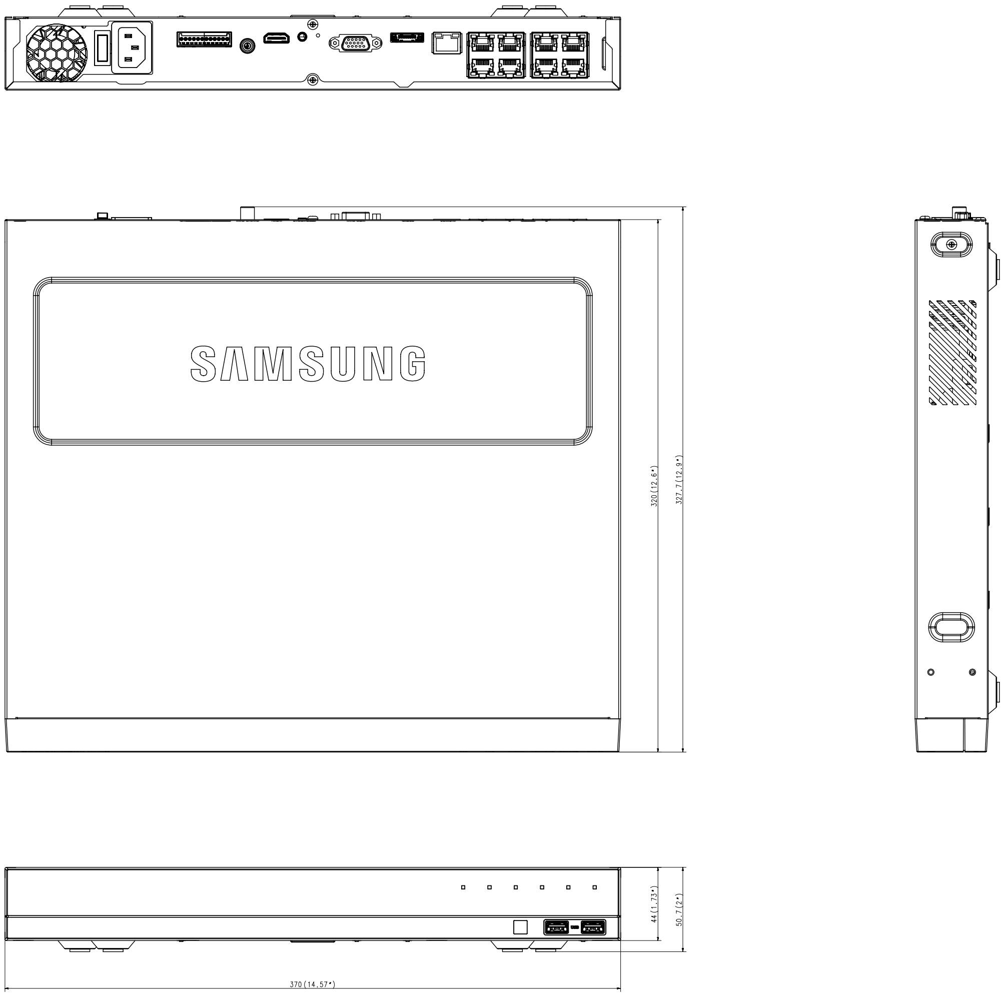
- SRN-473S

unit : mm (inches)


360(14.17")
159.9(6.3")
166.3(6.55")
44(1.73")
48.7(1.92")

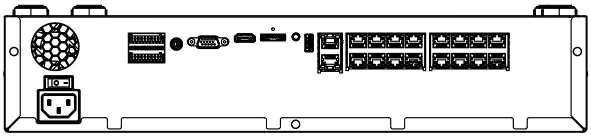
- SRN-873S

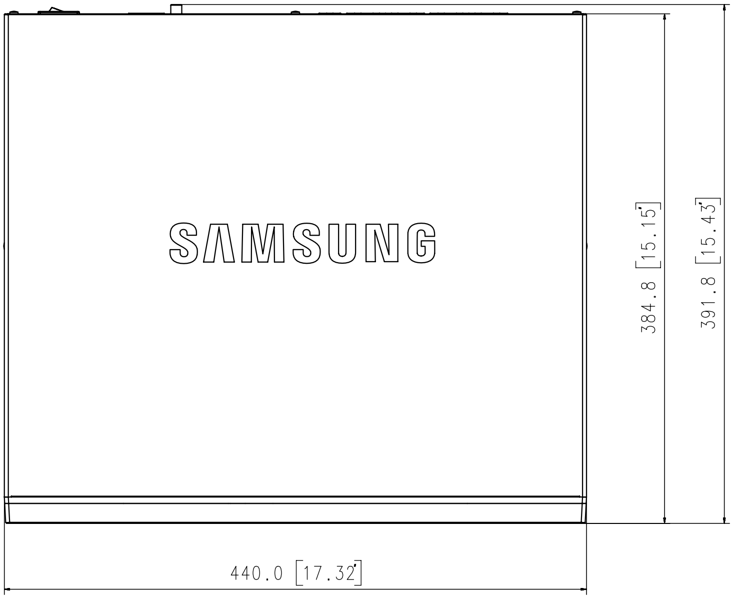
unit : mm (inches)

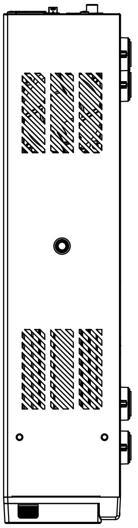

SAMSUNG
320(12.6")
327.7(12.9")
44(1.73")
50.7(2")
370(14.57")

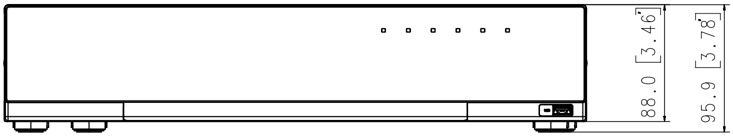
- SRN-1673S

unit : mm (inches)




SAMSUNG
384.8 [15.15"]
391.8 [15.43"]
440.0 [17.32"]




88.0 [3.46"]
95.9 [3.78"]

DEFAULT SETTING

To reset the system, move to "**System Management** > **Settings** > **Load Factory Default**" and press the <**Initialization**> button.

This returns the factory default settings.

- When you initialize the system without changing the <**Authority Setting**>, you must enter the ID and password to log into the system after it reboots. The ID and password are "**admin**" and "**4321**", respectively.
  Please change the password after you log in.

- The default settings are based on SRN-1673S.
- The initial administrator ID is "**admin**" and the password should be set when logging in for the first time.
- Please change your password every three months to safely protect personal information and to prevent the damage of the information theft. Please, take note that it's a user's responsibility for the security and any other problems caused by mismanaging a password.

Category	Details			Factory Default
System	Date/Time/Language	Date/Time/Language	Date	YYYY-MM-DD
			Time	24 hours
			Time Zone	GMT
			Time Sync.	OFF
			DST	OFF
			Language	English
			Holiday	OFF
	User	Admin	ID	admin
		Permission Setup	Restricted Access	Backup/Record/Record Stop/Search/PTZ/Remote Alarm Out/Shutdown
			Restriction on Network Access	None
			Auto Log out	3 Min
			Manual Input of ID	OFF
	System Management	System Information	Device Name	NVR
	Log Information	System Log	Log List	Setup Start (Local)
		Event Log	Log List	Video Loss Detection
		Backup Log	User	admin
Device	Camera	Cam Registration		OFF
		Camera Setup		OFF
		Live Setup		OFF
		Channel Setup	Video	ON
			Audio	OFF
			Camera Name	CAM 01 ~ CAM 16
	Storage Device	Device/Format	Device	HDD
			Usage	Internal
			Status	Normal
			Temperature	31°C/86°F

Category	Details			Factory Default
Device	Storage Device	HDD Alarm	Check Alarm Output Port	BEEP
			Duration	Continuous
			Replace Alarm Output Port	BEEP
			Duration	Continuous
	Remote Device	Remote Control		ON
		ID		00
	Monitor	Monitor	Event Display	OFF
			Display	All
			Sequence switching time	5 sec
			Video Output	VGA(1280x1024)
			Display Position Setup	30
	Text	Device	Device	TEXT 01~16
			Use	Not Use
			Port	7001~7016
			Encoding type	US-ASCII
		Event	Total amount	0
Record	Recording Schedule	CH1~CH16		Both(Cont&Evnt)
	Record Setup	Standard		Full
		Event		Full
		Pre Event		OFF
		POST Event		1 min
		Audio		OFF
	Record Option	Disk End Mode		Overwrite
			Disk End Beep	OFF
		Auto Delete		180

Category	Details			Factory Default
Event	Sensor Detection	NVR	Sensor Operation	OFF
			Cam	Camera No.
			Alarm Out	None
			Duration	10 sec
		Network Camera	Sensor Operation	OFF
			Cam	Camera No.
			Alarm Out	None
			Duration	10 sec
	Camera Event	Camera	Camera Event	OFF
			MD	OFF
			Cam	Camera No.
			Alarm	None
			Alarm Duration	10 sec
	Video loss detection		Video loss status	OFF
			Alarm Out	None
			Alarm Duration	10 sec
	Alarm Out Schedule			Alarm Out1
Network	Interface	Network	IP Type	Static
			Network 1 (Camera)	PnP mode : 192.168.231.200 Manual mode : 192.168.1.200
			Network 2 (Viewer)	192.168.2.200
			Subnet Mask	255.255.255.0
			Gateway	PnP mode : 192.168.231.1 Manual mode : 192.168.1.1
			DNS	168.126.63.1
		Port	Protocol Type	TCP
			Device Type	554
			UDP Port	8000~8159
			Multicast IP Address	224.126.63.1
			Multicast TTL	5
			HTTP Port	80
			Send SSL	OFF
			Backup Bandwidth	Low

Category	Details			Factory Default
Network	DDNS	Network1/2	DDNS Site	OFF
	IP Filtering		Filtering Type	Deny
	SSL		Secured Connection System	HTTP (Non-secured connection)
	802.1x	Network	Enable IEEE 802.1x	OFF
	Live Streaming			OFF
	E-Mail	SMTP	Port	25
			Use Authentication	OFF
			Secure Transfer	Never
		Event	Event Interval	10 min
			Use Event Transfer	OFF
		Recipient	Group Name	OFF
			Permission	OFF
	SNMP		Enable SNMP v1	OFF
			Enable SNMP v2	OFF
			Enable SNMP v3	OFF
			Enable SNMP Traps	OFF
	DHCP Server	Network 1 (Camera)	IP Address	192.168.1.200
			Subnet Mask	255.255.255.0
			IP Range	PnP mode : 192.168.231.1 ~ 192.168.231.254 Manual mode : 192.168.1.1 ~ 192.168.1.254
			IP Lease time	86400
		Network 2 (Viewer)	IP Address	192.168.2.200
			Subnet Mask	255.255.255.0
			IP Range	192.168.2.1 ~ 192.168.2.254
			IP Lease time	86400

TROUBLESHOOTING

Problem	Action
The system does not turn on and the indicator on the front panel does not work at all.	• Check if the power supply system is properly connected. • Check the system for the input voltage from the power source. • If the problem persists even after you have taken the above actions, check the power supplier and replace it with a new one if neccessary. • Check inside if the cables are properly connected. (SMPS, FRONT)
Some channels display just a black screen even if they receive video sources.	• Check if the camera is properly supplied with power. • Check the video output connecting the camera's webviewer. • Check if the network port is properly connected and the network setting is set correctly. • Change the hub supporting Gigabit, it may solves.
Even if you press the [**REC**] button on your remote control, the REC LED does not turn on and no recording is done.	• Check if there is recording space in the HDD. • In the menu, check if the recording mode is set to ON. • In the menu, check if the number of general recordings is turned <**OFF**>.
The screen displays the logo image repeatedly.	• This may occur from a problem with the main board, or the related software is corrupt. Contact the nearest service center for more information.
The Channel button does not work on the Live screen.	• The Channel button does not work if the current screen is in the event monitoring mode. If it is the event monitoring screen, press the [**ALARM**] button to terminate the event screen and select a channel.
The cursor will not move to the Start button when I start the calendar search.	• Check if the channel and the date that you want to play are marked with the V symbol. Both channel and date should be checked before you can start playing with the Start button.
No video is played on the connected monitor.	• Check if the necessary cables are connected to the monitor properly. • If the screen is not displayed even when a connection is made, then check the remote control, and press the [**STOP** (■)] ➞ [**ZOOM**] ➞ [**STOP** (■)] ➞ [**ZOOM**] ➞ [**MENU**] button to launch the basic resolution information window. You can set the desired resolution here. If the screen is not displayed after a while, then wait until the basic resolution window appear. Again, switch to another resolution and and finally switch to the final output resolution. • Some monitors do not support the NVR output (HDMI or VGA). (NVR output resolution : VGA : 1024*768, 1280*1024, HDMI : 720P, 1080P) Check the monitor resolution

Problem	Action
When an alarm occurs, I try to press the [**ALARM**] button on my remote control to cancel it but an alarm keeps running and it cannot be cancelled.	• Press the [**MENU**] button on your remote control to cancel the alarm. 1) Event monitoring screen cancellation: monitoring mode - Turn off the event monitoring time. 2) Canceling alarm sounds: event recording mode - alarm (camera event/video loss) - Mute the alarm output. 3) Canceling events: event recording mode - alarm (camera event/video loss) - Turn off the mode.
No response controlling PTZ in the live viewer.	• Check the registered Camera if it support PTZ function.
The camera is not connected or the PC fails to connect to the product.	• Check if the network cable is connected properly. • Ensure that you have set Network – Connection Mode. • Check the IP setting of the PC or camera. • Try the Ping Test. • Check if there is a different device near the product uses the same IP.
I registered a camera, but the web viewer does not show live video.	• After registering a camera, a user need to edit/save the desired layout, before the screen split mode and live screen fit for the setting appears.
In the web viewer, the screen does not switch automatically.	• You need to select the desired layout for sequence operation, in the automatic switching menu.
The Live screen is too bright or too dark.	• Check the video settings of the registered camera.
A message of "Need to reset date/time." Is displayed on the screen.	• This message is displayed if there occurs a problem with the time setting of the internal clock or an error in the clock itself. Contact the retailer or the service center for more information.
The time bar is not displayed in Search mode.	• The timeline can switch between normal and extension mode. In extension mode, the time bar may not be displayed in the current timeline. Switch to normal mode or use the left or right button to navigate through the time bar.
The "NO HDD" icon and an error message are displayed.	• Check the HDD for connection. If the problem persists in a normal condition, contact the nearest service center to have the HDD checked by the service personnel.
I have installed an additional HDD on the NVR but it does not recognize the HDD.	• See the compatibilty list to check if the additional HDD is supported by the NVR. For the compatibility list, contact the retailer where you purchased the NVR.
I have connected an external storage device (USB Memory, USB HDD) to the NVR but the NVR seems not to recognize it.	• See the compatibility list of external storage devices to check if the connected device is supported by the NVR. For the compatibility list, contact the retailer where you purchased the NVR.

Problem	Action
If I press the ESC key in full screen mode of the WebViewer, the system does not switch to a normal split mode.	• Press the ALT+TAB keys to select 'ACTIVE MOVIE' and press the ESC key again. The system will switch to a normal split mode.
I found it difficult to configure the network settings if using the default search, backup and router settings.	• For more information, refer to the user manual. • If you want to check the basics of the product for a quick start, refer to the quick start guide (backup, search). • If you use the router for network connection, refer to the "**Connecting and Setting the Network**" section in this manual.
I forgot the password.	• Contact the NVR administrator for help.
Backup data is just not played by the PC or NVR.	• When you are backing up data, you have choices about the player either: PC or NVR. Make your selection before proceeding. • If you are using the PC to play the data, the format of the backup file should be either SEC. • If you are using the NVR for this purpose, formatting backup files should be done by the NVR.
You cannot move to live while playing video.	• On the remote control, press the Stop [■] button or press the [■] button in the launcher to immediately move to the live screen.
Recording does not work.	• If your player does not display a Live image at all, that indicates recording does not work so first check if you see an image on the screen. • Recording does not work if the recording settings are not properly configured. 1) Direct recording: press the [**REC**] button on the NVR remote control to start recording immediately. 2) Scheduled recording: In menu/recording/scheduled recording, set the desired recording time to start recording at that time. - <**Continuous**> recording: Must start recording at the time. - <**Event**> recording: When an event occurs (alarm, motion detection, video loss), recording is started. If there is no event, there is no recording. - <**Continuous/event**> recording: If there is no event, continuous recording is done and when events occur, event recording is done.
The image quality of the recording data is not good.	• Increase the resolution and quality level in Menu – Record – Quality / Resolution. 1) Resolution: Select a bigger size when specifying the recording size. The recording image in the CIF format shows a deteriorated quality as it is enlarged from a small-sized image. 2) Record Quality: Specify a bigger level for the recording quality. • If you increase the resolution and the recording quality, the data size increases accordingly. So the HDD will be filled faster. Overwriting will overwrite the existing data so recording will proceed at a shorter interval.

Problem	Action
Frame rate of the actual recording does not match that of configured to the camera.	• If multiple profiles were applied to one camera for video transmission, the actual video stream can be serviced by the camera at a lower frame rate than specified. Configure your camera to use one profile for data streaming as possible. For example, if you set the same profile for recording and network profiles, the actual recording is made at the specified frame rate. Still, live video display using split screen mode may apply yet another profile to camera in accordance with the used screen mode. Note that allowed limit bitrate for recording / recording settings should be set to be bigger values than that of camera's feed.
Recording is not performed in accordance with the settings.	• If the recording status shows that the input data is exceeded. Then go to Menu – Recording – Recording Setting, and set the max data capacity to greater than the input data.
The recording screen will slow down.	• Check if the recording spec for each HDD condition (refer to the recording setting in menu) is appropriate for the actual recording setting. • Only main video frames will play if the data data processing rate exceeds the play performance (refer to the product specifications in menu).

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Acknowledgement

This product includes modified version of ffmpeg, Live555, qtopia 4.7.2, and npapi-sdk.

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<one line to give the program’s name and a brief idea of what it does.>

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[sheepb.jpg] “Clone me,” says Dolly sheepishly

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1. [1]Mark Andrews <marka@syd.dms.csiro.au> Leitch atomic clock controller
2. [2]Bernd Altmeier <altmeier@atlsoft.de> hopf Elektronik serial line and PCI-bus devices
3. [3]Viraj Bais <vbais@mailman1.intel.com> and [4]Clayton Kirkwood <kirkwood@striderfm.intel.com> port to WindowsNT 3.5
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5. [6]Karl Berry <karl@owl.HQ.ileaf.com> syslog to file option
6. [7]Greg Brackley <greg.brackley@bigfoot.com> Major rework of WINNT port. Clean up recvbuf and iosignal code into separate modules.
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10. [11]Steve Clift <clift@ml.csiro.au> OMEGA clock driver
11. [12]Casey Crellin <casey@csc.co.za> vxWorks (Tornado) port and help with target configuration
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22. [24]Frank Kardel [25]<Frank.Kardel@informatik.uni-erlangen.de>

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23. [26]William L. Jones <jones@hermes.chpc.utexas.edu> RS/6000 AIX modifications, HPUX modifications
24. [27]Dave Katz <dkatz@cisco.com> RS/6000 AIX port
25. [28]Craig Leres <leres@ee.lbl.gov> 4.4BSD port, ppsclock, Magnavox GPS clock driver
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29. [32]David L. Mills <mills@udel.edu> Version 4 foundation: clock discipline, authentication, precision kernel; clock drivers: Spectracom, Austron, Arbiter, Heath, ATOM, ACTS, KSI/Odetics; audio clock drivers: CHU, WWV/H, IRIG
30. [33]Wolfgang Moeller <moeller@gwdgv1.dnet.gwdg.de> VMS port
31. [34]Jeffrey Mogul <mogul@pa.dec.com> ntptrace utility
32. [35]Tom Moore <tmoore@fievel.daytonoh.ncr.com> i386 svr4 port
33. [36]Kamal A Mostafa <kamal@whence.com> SCO OpenServer port
34. [37]Derek Mulcahy <derek@toybox.demon.co.uk> and [38]Damon Hart-Davis <d@hd.org> ARCRON MSF clock driver
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40. [44]Ray Schnitzler <schnitz@unipress.com> Unixware1 port
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43. [47]Harlan Stenn <harlan@pfcs.com> GNU automake/autoconfigure makeover, various other bits (see the ChangeLog)
44. [48]Kenneth Stone <ken@sdd.hp.com> HP-UX port
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46. [50]Tomoaki TSURUOKA <tsuruoka@nc.fukuoka-u.ac.jp>TRAK clock driver
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1. mailto:marka@syd.dms.csiro.au
2. mailto:altmeier@atlsoft.de
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5. mailto:michael.barone@lmco.com
6. mailto:karl@owl.HQ.ileaf.com
7. mailto:greg.brackley@bigfoot.com
8. mailto:Marc.Brett@westgeo.com
9. mailto:Piete.Brooks@cl.cam.ac.uk
10. mailto:reg@dwf.com
11. mailto:clift@ml.csiro.au
12. mailto:casey@csc.co.za
13. mailto:Sven_Dietrich@trimble.COM
14. mailto:dundas@salt.jpl.nasa.gov
15. mailto:duwe@immd4.informatik.uni-erlangen.de
16. mailto:dennis@mrbill.canet.ca
17. mailto:glenn@herald.usask.ca
18. mailto:iglesias@uci.edu
19. mailto:jagubox.gsfc.nasa.gov
20. mailto:jbj@chatham.usdesign.com
21. mailto:Hans.Lambermont@nl.origin-it.comv
22. mailto:H.Lambermont@chello.nl
23. mailto:phk@FreeBSD.ORG
24. http://www4.informatik.uni-erlangen.de/˜kardel
25. mailto:Frank.Kardel@informatik.uni-erlangen.de
26. mailto:jones@hermes.chpc.utexas.edu
27. mailto:dkatz@cisco.com
28. mailto:leres@ee.lbl.gov
29. mailto:lindholm@ucs.ubc.ca
30. mailto:louie@ni.umd.edu
31. mailto:thorinn@diku.dk

32. mailto:mills@udel.edu
33. mailto:moeller@gwdgv1.dnet.gwdg.de
34. mailto:mogul@pa.dec.com
35. mailto:tmoore@fievel.daytonoh.ncr.com
36. mailto:kamal@whence.com
37. mailto:derek@toybox.demon.co.uk
38. mailto:d@hd.org
39. mailto:Rainer.Pruy@informatik.uni-erlangen.de
40. mailto:dirce@zk3.dec.com
41. mailto:wsanchez@apple.com
42. mailto:mrapple@quack.kfu.com
43. mailto:jack@innovativeinternet.com
44. mailto:schnitz@unipress.com
45. mailto:shields@tembel.org
46. mailto:pebbles.jpl.nasa.gov
47. mailto:harlan@pfcs.com
48. mailto:ken@sdd.hp.com
49. mailto:ajit@ee.udel.edu
50. mailto:tsuruoka@nc.fukuoka-u.ac.jp
51. mailto:vixie@vix.com
52. mailto:Ulrich.Windl@rz.uni-regensburg.de
53. file://localhost/backroom/ntp-stable/html/index.htm
54. mailto:mills@udel.edu

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Written by: Philip Hazel {ph10@cam.ac.uk}

University of Cambridge Computing Service,

Cambridge, England. Phone: +44 1223 334714.

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SAMSUNG TECHWIN AMERICA Inc.
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Fax : +1-201-373-0124
www.samsung-security.com

SAMSUNG TECHWIN EUROPE LTD.
2nd Floor, No. 5 The Heights, Brooklands, Weybridge, Surrey,
KT13 0NY, UK
Tel : +44-1932-82-6700   Fax : +44-1932-82-6701
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